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MEET

A STIMULUS TO MODERN THOUGHT

Volume II, Parts 3 and 4

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OF THE
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EDITED BY HENRY H. HOWARD

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NEW YORK

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WHERE THEOSOPHY AND SCIENCE MEET

A STIMULUS TO MODERN THOUGHT

A COLLECTIVE WORK

EDITED BY

D. D. KANGA, I. E. S. (RETIRED)

Managing Editor, Physical Science Section,

"Journal of the University of Bombay"

Vol. II

PART III: GOD

FROM HUMANITY TO DIVINITY

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AS A LOVING AND HUMBLE TRIBUTE
ON THE OCCASION OF
THE SEMI-CENTENARY OF THE PUBLICATION
OF
The Secret Doctrine
1888-1938

THE BUILDERS OF THE NEW CIVILIZATION¹

" In those who cannot be happy while others
are miserable,

In those whose meals are rendered bitter by
the starvation of the poor,

In those whose luxury is a burden because
of the wants of the many,

In *those* you will find the Builders of the
New Civilization,

*Those who shall sacrifice that others may
be happy "*.

¹ With apologies to the unknown author.

PREFACE TO THE SECOND EDITION, Vol. II

IT is said that there are two methods to bring about a better state of affairs in the world—Evolution or Revolution. The first is a lengthy process and may take years or centuries; the second is a shorter process and may bring about the change within a few years or months. The former is a peaceful method; the latter involves bloodshed, untold suffering, massacre of the innocents, destruction in a few hours or days of the beautiful, the sacred, the artistic elements in civilization, which have been the result of centuries of painstaking labour. Which of these two methods is to be preferred? Should progress be by evolution or revolution? We believe that a little clear thinking is necessary to answer this question. To help to bring about clear thinking, the light of true knowledge is necessary. Humanity is standing at the cross-roads today. The world is at present groping in darkness; the light of true knowledge and wisdom will help to dispel that darkness. We say that the method of revolution is absolutely necessary to bring about evolution. The latter is contained within the former as the very word *REVOLUTION* indicates. **But**, and this is a very important *but*, the revolution we are advocating is a different kind of revolution. It is a revolution not outside of us, but *within us*. The revolution within us has to be brought about *first*. Our pet theories, our old ideas and habits of thought require to be examined in the light of present-day knowledge and drastically changed where necessary. Massacre if it is necessary, is the massacre of our own selfishness, greed, lust, jealousy, ambition, which have now grown to such proportions that they have no patience to wait and think to see what untold misery and suffering they inflict on others to achieve their selfish ends. The bloodshed we are advocating is not the shedding of the blood of other people, but of one's own self. "The feet must be washed in the blood of the heart"¹ before one is able to drop out one's weaknesses and jealousies, one's fears and suspicions, one's bigotry and narrow-mindedness, one's

¹ *Light on the Path.*

pride and prejudice. The heart-breaking we are advocating is not the breaking of the hearts of other people by the massacre of innocent persons, destruction of treasures of art and, in short, of what we consider to be most precious and sacred, but it is the breaking of our own hard-heartedness by the surrender of our ill-gotten riches.

The malady the world is suffering from at the present day is **IGNORANCE**. It is the cause of all troubles in the world. It is the cause of suffering and misery. It is the cause of bloody revolutions, which have taken place in the past and which are taking place now. The only remedy for that is true **KNOWLEDGE** and right **UNDERSTANDING** regarding our own real selves and of the universe around us and the relationship between ourselves and those with whom we come into contact ; in other words, between ourselves and society, between ourselves and the State. The objective of the monograph book is to give that right understanding, or rather, to inspire one to get that understanding. Right understanding comes through right knowledge ; right knowledge comes through clear thinking. This book provides materials for clear thinking. Clear thinking results in conviction, resolute will and courage to bring about a revolution within one's own self. This revolution, this inner conversion is violent in so far as one's own self is concerned ; it is non-violent so far as others are concerned.

This revolution which is to be brought about within one's own self, **this reformation of one's own character**, this inner conversion, this change from within as a result of change of values, is not a matter of a few hours or days or months ; it is a question of years. But when a person is inspired to bring about this reformation, when he tries *consciously and deliberately* to bring about this revolution in his own character, the process is very rapid, and one fine morning he gets up to find that what he had considered revolution all along was nothing else but evolution for he finds himself a changed man ; he no longer is ignorant of higher values in life and therefore has lost most of his selfishness. No longer is he self-centred and purely selfish but has now become aware of his responsibilities and relationships with others. From being self-conscious, he gradually becomes "other-conscious" or "group-conscious" and that group slowly and surely becomes bigger and bigger. He now knows that to be truly happy is to be truly unselfish.

This revolutionary change even in *one* man's character is a shining example for others to follow. The man who is changed from within

spreads a silent message for those amongst whom he moves about. He cannot help doing that either by his thought, by his speech or by his daily life of little acts of service and sacrifice, and thus the message spreads. Thus communities of men arise who are inspired to bring about this reformation and revolution within their own selves. The message spreads wider and farther. Communities make nations and nations make the world. So, if one wishes to create a new and a better world to live in, one should begin with one's own self and leave others to follow their own methods of evolution.

"He who reforms himself, has done much toward reforming others; and one reason why the world is not reformed, is because each would have others make a beginning and never thinks of himself doing it".

T. ADAMS

Nothing that has been said in this book is dogmatic. A hypothesis is put forward, and our appeal to the reader is to take it as a hypothesis, pure and simple, and examine it, and if it is found to satisfy his heart and head, to follow it up, for conviction is the first thing that is needed to bring about the revolution from within. It must come from within; no outside agency can bring that about. A hundred lectures, a thousand sermons and ten thousand books and magazines will not bring that about, for they are all outside agencies. They may inspire. If this book inspires one to know more and thus to dispel one's own ignorance and selfishness, pride and prejudice, if it further inspires one to find out what the higher values in life are and how to attain them, it will have served its purpose.

It will be an inspiration to know that hundreds and thousands have tried the method advocated here and found it successful. That those who read this book may be similarly inspired to bring about this Revolution within their own selves which will end in their own EVOLUTION is our sincere prayer!

D. D. K.

Scientific Corroborations of Theosophy

It is desirable here to note that it is not for *justifying* Theosophy by science that the "Scientific Corroborations of Theosophy" are given in the book¹ but for pointing out that *as the occult method of investigating the phenomena of nature has been found to be sound as is proved by so many corroborations¹, so will the occult training and discipline,² which is recommended in the book, be found to be sound for refining and ennobling human nature and producing men and women of character*, thus filling up the gap between science and ethics, between head and heart. This gap exists today and therefore the great need for the humanizing of sciences is felt.

Frustration of Science in all Departments of Life

Just as there is frustration of science in the sphere of economics inasmuch as there is stifling of scientific research³, so is there frustration of science in all departments of life as the power given to man by science is misused by unscrupulous people for their selfish ends and therefore there is so much suffering and misery in the world in spite of so many achievements of science. Therefore, a spiritual background to modern science by the use of the Theosophical (Occult) Training and Discipline is the crying need of the day. And this need is felt not only in scientific education but in education in general. Hence the great need for introducing the well-tried theosophical training and discipline in education as well as in science, religion, industry and art will be understood and appreciated.

D. D. K.

Concordance

There are the following four copyright editions of *The Secret Doctrine* by H. P. Blavatsky :

First and Second Editions, 1888, Vol. I-II.

Third Edition, 1893, Vol. I-II ; 1897, Vol. III.

Fourth Edition (Adyar) 1938, Vol. 1-6.

The largest number of quotations given in the book are from the third edition. In order to facilitate reference to any one of these three editions, the corresponding pages of all the three editions are given side by side on pp. xxvii-xxviii under the title "Concordance".

¹ See pp. 158-182. Vol. I, this Series and Appendix, this Vol.

² *Ibid.*, p. 14.

³ See p. 482, this Vol.

The articles "An Epitome of Theosophy" and "Why Theosophy" by Dr. Annie Besant are placed at the beginning of Vol. I with the object of making the reader familiar with the fundamental teachings of Theosophy so that he may be able to go through the book intelligently and with interest and know for himself where Modern Science and Theosophy (Ancient Wisdom, Occultism) meet and how far science approaches Theosophy.

The emphasis in the article on "We and Our Food" is on "We". The importance of the Science of Diatetics in the development of the *whole* man is shown here.

Each article stands by itself. It is also related to other articles, as all articles together go to evolve a scheme of the drama of creation and evolution. The following articles may be read together with advantage :

An Epitome of Theosophy and Why Theosophy.

Archaeology, Geology and Anthropology.

Symbology and Mythology.

Relativity, Mathematics, Physics and a Study in the Fourth Dimension.

Matter and the Atom, Chemistry, A Note on Occult Chemistry and The Story of Atomic Energy.

From Mineral to Man, Evolutionary Biology and Anthropology.

Physiology, Western Scientific Research and the Etheric Double, We and Our Food, and Medicine.

We and Our Food, Economics and the Government of the World.

Modern Science and The Higher Self, Psychology, Philosophy and Yoga.

Education, Man and the Universe, Self-Exploration, Self-Unfoldment, and Yoga.

The Prefaces and Introductions in all the four Parts and the Epilogue.

* * * * *

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D. D. K.

PREFACE TO THE SECOND EDITION, Vol. I

THE aim of the book is to give in the modern scientific garb some of the great truths of the Ancient Wisdom and show how modern orthodox science is corroborating these truths in so many different directions and in such an ever-increasing measure.¹ The philosophy of the science of life is given in the first three parts showing that man is not body and mind alone but that he is a spirit, a fragment of the Divine, using both mind and body as his instruments. It further points out how the spirit descends into matter 'From Macrocosm to Microcosm' (Part I) and then ascends 'From Atom to Man' (Part II) and further ascends 'From Man to God' (Part III). The practical applications in daily life of this Ancient Wisdom of which Theosophy is the modern embodiment are given in Part IV entitled 'Some Practical Applications'.² In the second edition, some more subjects such as Food, Economics, Sociology, The Principles of Government, The Ministry of the Race, Art, Self-Exploration, Self-Unfoldment, etc. are added.

* * * * *

Two World Wars in one generation and a possibility of a third, perhaps an Atomic Bomb war, more terrible and devastating than the first two, if we are not wise and vigilant enough to prevent it, show that the philosophy of Life which has guided man in his private conduct, and politicians and statesmen in their public policies, is not complete and hence produces men and women with lop-sided development. This book is a humble attempt to give a more or less comprehensive view of the science of man as a complete integrated being, and present a more or less complete concept of man and the universe from many different angles. It pleads for a balanced view of life.³ It pleads for a New Technique of

¹ See "Scientific Corroborations of Theosophy", Part I.

² See the "Scheme of the Book", pp. xvii, Vol. II.

³ See diagram 2, General Introduction, Vol. I.

Life, a New Variety of Discipline,¹ a New Type of Education,² (Part IV), which would make WHOLE MEN. It pleads for a Religion of Personal Experience.³ It pleads for a happy and harmonious union of heart and head and hands, of goodness, intelligence and beauty, of humanities, sciences and arts. *Only whole men can save the world today.*⁴

D. D. KANGA

¹ See "Yoga", Part III, The Joy of Self-Unfoldment, Part IV.

² See *Education*, Part IV.

³ See *Modern Science and the Higher Self*, The Thrill of Self-Exploration and Yoga, Part III and The Joy of Self-Unfoldment, Part IV.

⁴ Dr. E. W. Sinnott: *Time*, p. 34, 27-10-1947.

PUBLISHERS' NOTES

SECOND EDITION

THE first Edition of WHERE THEOSOPHY AND SCIENCE MEET had a good reception both in and outside India, notwithstanding the difficulties of transport and communications following immediately after its publication in 1938-39. It was evidently a timely publication with a method of presentation that seemed just right. Parts I and II were reprinted in 1943. Part III was also out of print and there was a demand for the book. The present edition is enlarged, recast, revised and brought to date as far as possible and contains a large number of additional illustrations. The book is now published in two volumes, Royal Octavo size, each volume containing two parts of the first edition. The book was considered to be a valuable contribution to Theosophical literature; and it is in recognition of this fact that the Editor has been the recipient of the Theosophical Society Subba Row Medal for 1939. Considering the difficult times through which the world is passing, the book will be found to be useful in suggesting solutions for a number of problems facing humanity at present.

FIRST EDITION

It is with great pleasure that I have undertaken, on behalf of the Adyar Library, the publication of this book entitled WHERE THEOSOPHY AND SCIENCE MEET, A Stimulus to Modern Thought, edited by Professor D. D. Kanga. The book is the result of a joint and co-operative effort of a number of members of The Theosophical Society from different parts of the world, who have each written a monograph on some branch or branches of science and philosophy of which each has made a special study in the light of Theosophy with a view to correlating the two. Prof. Kanga has recently retired from the Indian Educational Service

and come to stay at Adyar. He is still connected with the Bombay University, which is his Alma Mater, as a member of the Chemistry Editorial Board and the Managing Editor of the Physical Science section of the *Journal of the University of Bombay*. Being a keen student of both Theosophy and Science he is eminently fitted to undertake a work of this nature. As the sub-title indicates, it is the hope of the Editor that the book will act as a stimulus to modern thought and will particularly appeal to those who are intellectually discontented and anxious to find out the Truth for themselves and apply it to the solution of the many complicated problems facing society.

8-5-1938

G. SRINIVASA MURTI,
Director, The Adyar Library.

THE SCHEME OF THE BOOK¹

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THE MEANING OF SYMBOLS: A PSYCHOLOGICAL AND PHILOSOPHICAL SURVEY. By Marguerite Mertens-Stienon

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¹ The Scheme of the Book is shown in the Table of Contents given here.

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ERRATA

- Page xxii, 104. Read " Isometric " for " Isomeric ".
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17/10/1911

From 14.00 to 15.00 hours. At 14.00 hours. The wind
was light and the sea was calm. At 15.00 hours.
The wind was light and the sea was calm.
At 16.00 hours. The wind was light and the sea was calm.

CONTRIBUTORS

1. **Mr. A. Rangaswamy Aiyar, B.A., B.L.,** Advocate, Mathurai, India.
2. **Miss Margaret A. Anderson,** Member of the Theosophical Research Centre, London. Writer.
3. **Dr. G. S. Arundale, M.A., LL.B., F.R.Hist.S., D. Litt.,** President, The Theosophical Society, 1934-1945, Educationist, Lecturer, Author, Internationalist.
4. **Dr. B. L. Atreya, M.A., D. Litt.,** University Professor and Head of the Department of Philosophy, Psychology and Religion, The Hindu University, Banaras, India.
5. **Dr. M. Beddow Bayly, M.R.C.S. (England), L.R.C.P. (London).** Vice-President, Medical Practitioners' Union. Associate, British Faculty of Homœopathy. Lecturer, Author. Member of the Medical Group, the Theosophical Research Centre, London.
6. **Dr. L. J. Bendit, M.A., M.D., B. Chir. (Cantab.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.P.M.,** Medical Psychologist, Lecturer, Author. Member of the Medical Group, the Theosophical Research Centre, London.
7. **Dr. Annie Besant,** President, The Theosophical Society, 1907-33. Reformer, Statesman, Author. One of the world's greatest orators.
8. **Mr. Claude Bragdon,** New York. Architect, Author of works on Art, Architecture and Occultism. Co-translator with Nicholas Bessarakhoff of Ouspensky's *Tertium Organum*.
9. **Dr. (Miss) Thérèse Brosse, M.D. (Paris),** on the staff of the Paris Hospital expert in Cardiology. In 1935-36 toured India with a commission from the French Government to investigate physical reactions to states of consciousness in Yogis.
10. **Prof. Shyām Charan, M.A., M.Sc. (Lond.),** late Head of the Department of Mathematics, Agra College, Agra, India.
11. **Mr. G. Nevin Drinkwater, B.Sc. (Lond.),** Diplômé of the Museums Association, England. Author of Corroborations of Occult Archaeology. Member of the Theosophical Research Centre, London.
12. **Mrs. Viva Emmons,** a keen student of Theosophy and Science.

13. **Mr. Peter Freeman**, Member of the House of Commons (Labour), 1929-31, 1945—. General Secretary of The Theosophical Society in Wales, from 1922 to 1943.
14. **Mr. Iwan A. Hawliczek, B.C., (Mathematics)**. Member of the Theosophical Research Centre, London. Joint Author with Prof. Marcault of *The Next Step in Evolution*. Travelling Lecturer. Formerly Librarian, English Section, the Theosophical Society, England.
15. **Mr. C. J. Jayadev, M.A., L.T.**, Curator, Anthropological Section, Government Museum, Madras, India.
16. **Mr. C. Jinarajadasa, M.A., (Cantab.)** President, The Theosophical Society from 1946—. International Lecturer and Author, A great thinker and an inspiring teacher.
17. **Prof. D. D. Kanga, M.A., A.R.I.C., A.I.I.Sc., F.A.Sc., I.E.S., (Retd.)**. Editor-in-Charge of the Chemistry Editorial Board and Managing Editor of the Physical Science Section of the Journal of the University of Bombay. Editor, "Where Theosophy and Science Meet".
18. **Mr. R. D. Kanga, M.A.**, Ex-Secretary, The Bombay Electric Supply and Tramways Co. Ltd., Bombay. A keen student of Theosophy and Science.
19. **Mr. A. F. Knudsen**, Civil Engineer (M.I.T., Boston), Acting Principal, Brahma Vidya Ashrama, Adyar, 1928-29. Presidential Agent, Far East, 1936-1939. National Lecturer, American Section, 1900-1920; International Lecturer.
20. **Mr. Fritz Kunz, B.A.**, Author, National Lecturer, U.S.A.; Director of Research Seminars and Originator of Visual Education Service; Editor, "Main Currents in Modern Thought", N. Y.
21. **Mr. Charles E. Luntz**, Author; specializes in occult interpretation of the Bible and Esoteric Astrology; many years Lecturer on Theosophy in Central, Eastern and Southern States, U.S.A.
22. **Prof. J. Emile Marcault, M.A., LL.B.**, Scholar, Psychologist, Educationist. Professor of Psychology and French Literature, University of Claremont (1909-17), University of Pisa (Psychology) 1917-1924. Formerly, General Secretary of The Theosophical Society in France.
23. **Madame Marguerite Mertens-Stienon**, Theosophical Lecturer in ~~England~~ and abroad. Author of "Studies in Symbolism". Convener, Symbology Group, the Theosophical Research Centre, London.
24. **Prof. G. E. Monod-Herzen, D. Sc.**, Emeritus Professor of Physics, Faculty of Medicine, Kabul University, Afghanistan. Director, Centre d'Etude Supérieures Indiennes, Pondicherry, India.

25. **Dr. Maria Montessori, M.A., D. Litt., F.E.I.S.,** Dr. Honoris Causa, Amsterdam University, Officer "de orde Orange Nassau", Holland, Officer de Legion d'Honneur, France, Hon. Citizen, Perugia, Italy; an Educationist of International Reputation, Author of many books on Education. Originator of the Montessori System.
26. **Dr. Kewal Motwani, A.M., Ph. D.,** Author, Lecturer, an exponent of sociological studies. Was invited to lecture on various phases of Indian civilization by over sixty universities and colleges of the U.S.A. between 1932-36. Formerly, Secretary, Sub-Committee on Science and its Social Relations of the Indian Science Congress, was deputed to lecture on Science and Society before the Indian Universities in 1944-5. Has lectured before various universities in Japan. Actively interested in the introduction of sociology in Indian education.
27. **Prof. T. Balakrishnan Nayar, M.A. (Madras) History, and M.A. (London).** Archaeology, Professor of Indian History, Presidency College, Madras.
28. **Capt. A. G. Pape,** Author of "Is There a New Race Type?" Founding Fellow of the Anthropological Society of Scotland.
29. **Mr. James S. Perkins,** National President, the Theosophical Society in America, Artist. For many years an illustrative painter, illustrator, designer and advertising idea-man in Cincinnati, Ohio, travelled and lectured extensively in the U.S.A.
30. **Miss Edith F. Pinchin, M.R.S.T.,** Montessori Diplomée. Formerly, on the staff of the Besant Memorial School, Adyar, Member of the Theosophical Research Centre, London, Member of the Folk-Lore Society. Author of "The Bridge of the Gods", "A Study in Gaelic Mythology". Chief Knight for England of The Round Table for many years.
31. **Mr. R. G. Pizzighelli, B.Sc. (Civil Engineering, Witwatersrand University, Johannesburg, S. Africa, 1927.)** A keen student of Theosophy and Science, Author and Lecturer. Has held important positions in the Theosophical Society and lectured extensively in S. and E. Africa for the last 16 years.
32. **Mr. Gaston Polak,** Civil Mining Engineer, formerly General Secretary, The Theosophical Society, Belgium.
33. **Dr. D. H. Prins,** Editor and Writer, The Hague, Holland.
34. **Dr. Pieter K. Roest, Ph. D. (Chicago).** National Lecturer for The Theosophical Society in the United States of America since 1934.
35. **Srimati Rukmini Devi,** President, Besant Centenary Trust; Director, Besant Theosophical School and the Arundale Training Centre;

President and Founder, Kalakshetra (an International Cultural Centre), Adyar. President, World Federation of Young Theosophists, International Lecturer. A great Artist and inspiring Teacher. A great exponent of Bharata Natyam, the classical dance of India.

36. **Sri Swami Sivananda**, a spiritual Preceptor, Lecturer, Author. Founder-President, "Divine Life Society". Editor, "The Divine Life", Director, Sivananda Publishing League, Rishikesh, Himalayas.
37. **Miss Julia K. Sommer**, B.Sc. (Chicago), M.A. (Columbia). Chairman, American Section of the Theosophical World University Movement, and of its Research Department. Editor, "Child Training in the Light of Theosophy". Lecturer and writer for the spread of ideas of progressive education.
38. **Mr. N. Sri Ram**, B.A., International Lecturer, Editor. Intimately connected for many years with Dr. Annie Besant as her Private Secretary and Assistant Editor of her newspaper "New India". Vice-President of the Theosophical Society from 1942 to 1946. Holds many important offices in the Theosophical Movement.
39. **Dr. (Miss) Corona G. Trew**, B.Sc., Ph. D. (London). Member of the Theosophical Research Centre, London. Joint Author of "Studies in Evolutionary Psychology". Lecturer in Chemistry, Bedford College, London.

CONCORDANCE¹

TO THE FOUR COPYRIGHT EDITIONS OF THE SECRET DOCTRINE

First and Second Editions, 1888, Vol. I-II

Third Edition, 1893, Vol. I-II ; 1897, Vol. III

Fourth Edition (Adyar), 1938, Vol. 1-6

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¹ *The Secret Doctrine Concordance*, by Arya Asanga, T.P.H., Adyar, 1940.

* See pages x and xxviii, this Vol.

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ABBREVIATIONS

- S.D. *The Secret Doctrine* by H. P. Blavatsky
Third Edition, 1893, Vol. I-II ; 1897, Vol. III
The corresponding pages in the other editions are
given on p. xxvii-xxviii. See Concordance, p. x.
- I. U. *Isis Unveiled* by H. P. Blavatsky (Vols. I & II)
- Man : *Man : Whence, How and Whither* by Annie Besant
and C. W. Leadbeater
- F. P. T. *First Principles of Theosophy* by C. Jinarājādāsa
- O. C. *Occult Chemistry* by Annie Besant and C. W. Leadbeater
- E. & C. *The Earth and its Cycles* by E. W. Preston
- T. *The Theosophist*
- J. U. B. *Journal of the University of Bombay*
- E. B. *The Encyclopaedia Britannica* (1947)

* See page x.

GENERAL INTRODUCTION TO THE
SECOND EDITION, VOL. II

Shun the man who knows not, and knows not that he knows not, for he is a fool.

But he who knows not, and knows that he knows not, is a child—*teach* him.

Awaken the man who knows, and who knows not that he knows, for he is just asleep.

Follow the man who knows, and who knows that he knows, for he is wise.

(The Wisdom of Ancient Persia)

Man! Know Thyself.

(The Wisdom of Ancient Greece)

Thirty spokes surround one nave,
the usefulness of the wheel is always in that empty innermost.

You fashion clay to make a bowl,
the usefulness of the bowl is always in that empty innermost.

You cut out doors and windows to make a house,
their usefulness to a house is always in their empty space.

--LAO TSE

(The Wisdom of Ancient China)

GENERAL INTRODUCTION TO Vol. II

There is no better preparation for a clear comprehension of Theosophy than a good, general knowledge of modern science. For science deals with facts, tabulating them and discovering laws : Theosophy deals with the same facts, and though they may be tabulated differently, the conclusions are in the main the same. Where they differ, it is not because Theosophy questions the facts of the scientist, but simply because, before coming to conclusions, it takes into account additional facts which modern science either ignores or has not as yet discovered. There is but one science, so long as facts remain the same ; what is strictly scientific is Theosophical, as what is truly Theosophical is entirely in harmony with all the facts, and therefore in the highest degree scientific.¹

ALL is not well with the world. In spite of so much progress in science and of so much intelligence, talent and genius in the world, we are not yet able to solve the great problems of poverty, unemployment, food, clothing, shelter, wars. Is there anything missing in our mental training, in the technique of life we are following, in the way we are receiving our education, in our training and discipline, in our philosophy of life, in the concept about our own constitution and that of the universe ? Are the policies we are following in public administration and our conduct in private life sound, based on the laws of life and eternal verities ? These are legitimate questions which arise in our minds when we find so much pain, suffering and misery in the world, when we have seen before our eyes ~~two~~ world wars fought out within a generation and the threat of a third world war—an atom bomb war—looming large on the horizon.

. Why is there so much unrest in the world, so much trouble, so much chaos and conflict ? Have they a physical or psychological basis ? Are they due to political or economic reasons, or both ?

¹ C. Jinarājadāsa : *First Principles of Theosophy*, p. 5.

Are we in the midst of a second industrial revolution? When power and the machine were introduced for the first time in England, there was an industrial revolution. The workers revolted, thinking that they would be thrown out of employment, for a machine can do the work of ten, twenty or fifty people. Their fears were not justified, for instead of less employment there opened out a scope for larger employment on account of finding outlets for excess of goods manufactured in the foreign markets. In the first industrial revolution, the workers opposed the introduction of power and the machine, while the capitalists, the employers, welcomed them for they brought in more dividends as a result of less cost of production. During that period (nineteenth century) science was international and there was a happy marriage between science and industry; both helped each other. Circumstances have now altered since the beginning of the present century. When a new scientific process made a lucrative commodity obsolete and a new invention scrapped a costly plant in which lacs of rupees had been sunk, then the discoveries and inventions ceased to be welcome guests. And they were opposed both by capitalists and labourers, for both parties were affected. It seems we are in the midst of a second industrial revolution. Partly because of this but mainly because of the misuse of scientific researches for war purposes, there was a talk of shutting down research laboratories for some years and a demand for "the fettering of science and scientific workers".¹ This does not seem to be a practicable proposition and right procedure. In the present century there has been a frustration of science.² Science has been "prostituted to the service of the sword and the purse".³ Science is no longer independent and international in character as it was in the nineteenth century. Science can do a thousand times better for the well-being of man than what it is doing now if it is given free scope for research and if it is properly planned and organized with an eye to the welfare of humanity.

To achieve these objects, we should evolve an economic system in which the weak points of all the systems followed at present in different countries are eliminated, *in which the dignity of the human individual is maintained*, in which there is no frustration of science, in which there is no stifling or suppression of research, in which over-production is not supposed to be a curse, in which insect and locust pests are not hailed

¹ See p. xlv, Vol. I, this series.

² See the article on Economics, p. 432, this volume.

with delight and in which news of any invention for a cheaper and larger production of foods and goods is received with joy and welcomed with open arms.

* * * * *

But could the economic question be solved with the help of systems and institutions *alone* without affecting the dignity of the human being and interfering with his freedom? Let us see.

THE RULE-OF-THUMB METHOD

The manager of a glass factory was of a foreman type.¹ He had no knowledge of the elementary principles of science. By long experience and the practice of the rule-of-thumb method he had acquired the art of making glass of ordinary quality used for making ordinary bottles. One day he received a big order for making red-coloured glass. He had never before made glass of that colour but he thought that with the help of a book of recipes, he would be able to make red-coloured glass. So, he accepted the order. The chemical mentioned in the recipe for producing the red colour was oxide of copper; the other ingredients were sand, soda and limestone. The manager took all the materials in the proportions given in the recipe. He expected to get red-coloured glass but to his surprise and chagrin he obtained glass of a green colour. He repeated the process on the same large scale as before, thinking he must have made some mistake, taking all possible precautions, but the result was again the same. As he did not know the *principles* of glass manufacture he could not understand why he did not get the red colour. He felt himself groping in the dark. He had already lost heavily financially; so, he finally decided to take the advice of a consulting chemist. He told him what ingredients he had used and in what proportions. When the chemist asked the manager what oxide of copper he had used, cuprous or cupric, and whether he had carried out the process under a reducing atmosphere, he simply looked on and did not reply, for he had not known up till that minute that there are two varieties of copper oxide, ~~cuprous~~ and cupric, and that the cuprous oxide is used for the production of red glass, provided the reaction was carried out in a reducing atmosphere and the cuprous was not allowed to get oxidized to cupric. This was too much for him. He did not know that it was just as fatal

¹ By courtesy of the Bombay University. This episode is taken from the writer's own editorial notes in the Bombay University Journal.

to his business to use cupric oxide when cuprous oxide was required as it was to the life of a man to be given *mercuric* chloride (corrosive sublimate) when *mercurous* chloride (calomel) was to be given as a purgative.

THE SCIENTIFIC METHOD

The manager failed to solve his problem because he thought that the method he was following, namely the rule-of-thumb method, was a perfect method, for it had never failed him so far in the narrow sphere in which he was working. From his failure in making the red-coloured glass he became aware of a new method, the scientific method of approach, which was based on the study of the principles of different sciences, and further, that the knowledge and acquisition of which would help him to a better understanding of glass-making of different colours, where before he was groping.

THE NINETEENTH CENTURY

The nineteenth century was the heyday of science and industry. By the employment of scientific method and the judicious use of research, both science and industry advanced rapidly and prospered. Each affected, and was affected by, the other. Claims were put forward by some of the eminent scientists of that century that science was able to explain everything and solve "the riddle of the universe" (Haeckel) and that the scientific method was the *only* method of discovering truth and reality. And, moreover, the scientific training and discipline was so superb in the building of human character that religion was relegated to an inferior position or ignored altogether.

Further, the researches of Copernicus (astronomy) and of Darwin (biology) discredited some of the statements made in the Holy Scriptures about the earth being a flat disc, fixed and in the centre of the universe (geocentric system), and about evolution and of man being the centre of the universe (anthropocentric system), for whom everything was created and to the interests of whom everything was subordinated. So, science shook the faith of the people in religion who therefore questioned the veracity of *all* statements made therein—those about God, Spirit, Soul, Immortality, the meaning and purpose of life, etc. This turned the minds of people and of the youths in particular to skepticism, agnosticism, materialism. Henceforward, science dominated every branch of knowledge

and every department of life and was supposed to have the capacity of solving all problems confronting man in any sphere of life.

THE TWENTIETH CENTURY

The twentieth century brought new and difficult problems, partly as a result of the introduction of power and the machine and the discovery of the atom bomb and partly as a result of a new outlook on life given to it by the nineteenth century scientists. Instead of the problems becoming less numerous and less difficult with the progress of science, they have multiplied and become more and more difficult of solution. Instead of the riddle of the universe being solved by science, it has become more complicated, for the scientist of the present day, in spite of the tremendous progress of science made in the first half of this century, finds himself faced with grave and knotty problems, such as poverty, unemployment, wars, starvation, disease, inflation of prices, untold misery and suffering, an exhibition of depraved human nature, as shown by corruption, exploitation, profiteering, black-marketeering, as exemplified by lust of greed, lust of possessions, lust of power, lust of prestige, crises in science and society, in economics and politics, frustration of science, intellectual callousness, ruthless cruelty, the spreading of deliberate falsehood and untruth by propaganda through the press and the radio, deadlocks in every department of life, bankruptcy in thought, moral chaos and spiritual anarchy—the scientist of the year 1951 feels himself staggered at the host of problems which have cropped up and which he finds himself incapable of solving.

Once more, the scientist of the present day finds himself face to face with the preparations of a Third World War—an atom bomb war—the big nations of the world are busy with, instead of the arrangements for the establishment of peace which is overdue.

The claims put forward by some of the eminent scientists in the beginning of the century, as a result of the triumphs of science of the last century, have not been *justified* in the light of the tragic events of the previous three or four decades.

LIMITATIONS OF SCIENCE

The scientist of the present day has now become humble and is fully conscious of the limitations of science and of its power to solve "the riddle of the universe" and society's and world problems. Shall we further suppose that he is now becoming more aware of the inadequacy

of scientific training and discipline in the refining and ennobling of human nature and the production of men and women of sterling character? The science of the 19th century was responsible for the promulgation of the doctrine of materialism and for its "dogmatic assertiveness, sometimes positive, sometimes negative, about matters (eternal verities) concerning which there was not sufficient knowledge". (Millikan) The science of the present day is "much more open-minded, much less dogmatic, much less disposed to make all-inclusive generalizations, and to imagine that it is dealing with ultimate verities than it was in the beginning of the century".¹ The doctrine of materialism which was supposed to be unshakable in the nineteenth century has been shaken to its very roots in the twentieth century, for matter has now become dematerialized in the light of the researches of the atomic physicists. Matter and energy are now interconvertible terms. Science is now beginning to recognize its own fallibility, for nothing in this world can be absolutely known. She is further becoming aware of the imperfection of human senses, and senses aided by technical instruments which are not 100 per cent precise and which, again, are not sufficiently delicate to respond to the vibrations coming from the superphysical worlds.

IS THERE AN EXPLANATION?

Continuing our main line of argument shall we inquire if there is an explanation for the occurrence of deadlocks in human affairs, and crises in society and science, as we have seen above? Is it possible that the scientists, statesmen and leaders of society are groping in the dark as did the foreman-manager when he was confronted with the problem of making red glass? Is it possible that they are unaware of the laws of life, that they are ignorant of the principles on which man's whole life is based, that they are ignorant of the true nature of man and of the universe, as was the foreman-manager, regarding the nature of red glass and the principles on which the process of its manufacture is based? Is it possible that the scientists, statesmen and leaders of society, who are primarily men, are drifting on the ocean of life aimlessly, not knowing what they really are, what their goal in life is, what their destiny, that they are not able to solve the current complicated problems—economic, political, social and educational? Is it possible that the present-day man, because of the incomplete

¹ Millikan : *Evolution in Science and Religion*.

concept about himself and his incomplete philosophy of life, is not able to resolve the many deadlocks with which he is faced in society?

A CHALLENGE TO THE SCIENTISTS AND LEADERS OF SOCIETY

It is high time that the scientists and leaders of society of the present day must face these problems bravely and try to find out their solutions. If they find from their investigations that the scientific method of inquiry is not sufficient for the astronomical world and has failed completely in the world of atoms and sub-atoms,¹ then they must *supplement* it by another method. If they find that the scientific training and discipline has failed to make them gentle, compassionate, more understanding, more considerate, then they must *supplement* it by another training and discipline which may have the power to transform the present-day selfish, exploiting animal-man into a truly loving, self-sacrificing, co-operating human being willing to share what he has with others.

THE INADEQUACY OF THE RULE-OF-THUMB METHOD

The rule-of-thumb method of the forman-manager led him into a financial disaster. It was found to be inadequate and had to be replaced by the scientific method.

THE INADEQUACY OF THE SCIENTIFIC METHOD

We yield to none in our admiration of the scientific method, the value of which for researches in physical phenomena in a man-sized world we fully appreciate and which, we believe, will serve the scientist beautifully for hundreds of years to come. But where the scientific method has been found to fail or to be insufficient in the cases we have seen above and also in the study, not of physical man, body and brain, but the psychological man, mind, intuition and spirit, then it requires to be *supplemented* by another technique.

THE OCCULT METHOD

The new technique we suggest is the occult method. The occult method of investigation and the occult training and discipline will, we

¹ Review of *Physics and Philosophy*, by Sir James Jeans, *Science and Culture*, January 1944, p. 529.

believe, fill up the gaps and deficiencies in the present-day scientific method of investigation and the present-day scientific training and discipline.

WHAT IS THIS NEW TECHNIQUE ?

What is this occult method and how is it going to help us to solve the multifarious problems which face us, not only in the outer world of affairs but also in the sub-atomic world where the present technique has failed us? The new technique gives a new instrument for research into the sub-atomic and astronomical worlds. It is not an external instrument but an instrument which the individual has to build up within himself by undergoing certain training and discipline. This will unfold certain latent faculties in him which will help him in his researches. This training and discipline *demand* the purification and control of body, emotions and thoughts, the harmonization of thought, speech and action, and their integration, all acting under the direction of the Inner Ruler Immortal, the real man, the Spirit. This discipline will bring about an alchemical transmutation of the lower nature of man into the higher and make man master of his vehicles, with the result that he becomes a man of noble character, selfless, loving, compassionate, incapable of misusing his powers, with his whole life consecrated and dedicated to service. At the same time, it will give him a deeper understanding of the laws of life, help him to develop his innate faculties which will, if he perseveres, become capable of responding to the subtler vibrations coming from the astronomical and sub-atomic worlds. Thus, the new technique will serve a two-fold purpose of developing man into an occult researcher in the superphysical worlds and also make him cultured, refined and noble. This will help him naturally to solve also the multifarious problems facing him and the world at the present day which he is not able to solve in spite of all the knowledge and power that science has given him for the simple reason that his character is not fully developed.

THE DIAGNOSIS AND THE REMEDY

The present chaos and conflict in the world are due to a fundamental maladjustment. This fundamental maladjustment is due to a lack of perception of the essential values of life. A **revaluation** of these

essential factors is therefore absolutely necessary. Spirit, mind and body should be given their *rightful* places in human constitution. This will lead to the proper readjustment also of the positions of Ethics and Spirituality (Spirit), Science and Engineering (Mind), and Economics and Politics (Body) in the outside world. In other words, our technological civilization (science and engineering) needs to be based on spiritual foundations (ethics and spirituality). Only then will spiritual values come into life. Only then will the paradoxes of life disappear.¹ Only then will man regain his own dignity and responsibility. He has lost this dignity because he has forgotten his noble heritage, his divine origin, that he is a spark of Divinity, that he is Spirit, first and foremost, and that mind and body are his instruments.² Man is called *Urvan*, which means "the chooser", by Lord Zoroaster. This is his first fundamental freedom by right, by reason of his being a human individual. Man is therefore free to choose either the good or the evil. The freedom of choice is his. Consequently, the responsibility of choice is his. This will help him to rise to his real human stature. He will not then act as a machine, as a dumb-driven animal.³

To regain this stature, man must follow a new technique of life, a new training and discipline. These are shown in the book.⁴

At present the development of man is lop-sided, because his concept about himself is incomplete, his philosophy of life is incomplete.⁵ The problem of world reconstruction cannot be solved without the problem of individual reconstruction being solved at the same time. Both reconstructions, at the individual and institutional levels, must go on side by side.⁶ At present the emphasis is on institutions. The individual is ignored and left in the background. This has led to the present chaos in the world. Solve the problem of the individual and the world problems will automatically solve themselves.

¹ See p. xxxvi, Vol. I, this Series.

² See diagram 7, facing p. 288, Chemistry, Vol. I, this Series: also, *The Thrill of Self-Exploration*, p. 225, this volume.

³ See pp. lli, liv, Vol. I, this Series.

⁴ See *Yoga, The Thrill of Self-Exploration, The Joy of Self Unfoldment, Art, Yoga: Art or Science, Psychology, Philosophy and Theosophy*.

⁵ See diagram, p. li, Vol. I, this Series.

⁶ See Economics, p 491, this Vol.

There is a great gulf between the rapid intellectual advance and the tremendously slow snail-like progress in ethics and spirituality.¹ How to bridge this gulf is the most important question.

Theosophy shows this new technique, for Theosophy is a bridge-builder. *Theosophy serves as a key-stone.* (See diagrams) "For Theosophy bridges the gap between the knowledge of God, which is the supreme science and the sciences of the physical world in which we live, by providing a science of the superphysical, and of religion, and of the Spirit. Without these, no such bridging is possible; without these God cannot be brought into intelligible relation with the things of daily life".²

Expressing his grave doubts as to the fitness of man to use the gifts bestowed on him by scientists and inventors, Sir Alfred Ewing said: "Man is ethically unprepared for the great bounty. In the slow evolution of morals he is still unfit for the tremendous responsibility it entails. The command of Nature has been put into his hands before he knows how to command himself". It is therefore the function of science and the scientific culture given by all educational and research institutions to see that the gap, which threatens the disruption of our civilization, is closed up. In other words, science must henceforward include in its programme ways and means for the most effective drive towards ethical and spiritual values and thus render its most priceless human service. It is the urgent duty of all educationists to see that the advance of science and the spread of scientific culture proceed along a parallel advance in man's ethical and spiritual development. The sciences need to be humanized. Orthodox science needs to be liberalized and extended in its scope so that it approaches theosophy, occultism. The scientist of today is the occultist of tomorrow. The alumni of the Universities will have to go forth not only as searchers after truth but also as devotees in the cause of the true religion of humanity. The motto of science should henceforth be not only Truth but Truth and Service.

It is the duty of every University to see that there is provision in the courses of study provided by it for its alumni to develop equally from *all* sides, to develop the *whole* man, (heart and head and hands). Only then will the progress be smooth and not till then will the University be said to have fulfilled its *Dharma* as University (universality), for Wholeness is Holiness, Nobility, Culture and Refinement.

D. D. KANGA

¹ See diagram, facing p. xi, Vol. I, this Series.

² Haden Guest; *Theosophy and Social Reconstruction*, p. 20.



Diagram showing an Incomplete Bridge for want of a Key-Stone



Diagram showing Theosophy as a Bridge-Builder



PHYSIOLOGY

BY THÉRÈSE BROSSE

PHYSIOLOGY is the science of function. If the body is related to matter and anatomy is its specific science, function is related to life and physiology is its science. It is the object of the present monograph to indicate how far modern Science comes towards Theosophy in the domain of physiology, *i.e.*, of function.

Postulates of
Theosophy

Let us first mention Theosophy's postulates in regard to physiology. Theosophy postulates:

1. The unity of the life energy in all beings and in all the universe. That unity is expressed in the mutual interpenetration of the organism and its environment and in the exchanges going on continually between them. Cosmic Function, or divine life in action, is one in the universe.

2. Life as a process of organization is evolving. This organization takes place on a succession of levels, the levels of life's organization being the same as the levels of material involution. These levels considered from the point of view of matter, are discontinuous; the unity of life as it proceeds to organize those levels, joins them together in organic unity—whether in the Cosmos or in separate beings.

3. Whatever the level reached by life, its activity lies in a double direction: (a) it integrates the levels previously organized within the unity of its new level which always acts as synthesis; (b) it organizes the virtual contents of its new level in contact with and by means of its previous synthesis.

4. Applied to our own globe and within the field of physiological research the levels already developed are: (a) the material or mineral, (b) the biological or vegetable, (c) the psychic or animal, (d) the spiritual or human. Successive world-periods¹ have been dedicated to the development of these levels, each level evolving through the integrated lower ones; the biological or vegetable annexing, and evolving through, the integrated mineral; the psychic or animal evolving through the integrated vegetable;

¹ See p. 73 and Chart facing p. 78, Vol. I—Ed.

the spiritual or human evolving through the integrated psychic. So that, in the plant the life or function is biological and the body material ; in the animal the life or function is psychic and the body biological ; in man the life or function is spiritual and the body psycho-biological. In man, the spiritual function integrates the psychic and the biological within its synthetic unity.

Life is organizing energy or power descending from one level, and organizing itself within the substance of the lower as body. Life's functional synthesis is always one plane or level above its organism. Life and its organizing purpose is always anterior to, superior to, causal to, the organism which is its expression. As function is life, Theosophy certainly postulates the distinctness of function with regard to organism ; function transcends organ as purpose transcends action. Function moves the organ as electricity moves the engine.

Now with regard to man, Theosophy postulates the absolute individuality of his organizing life. Spiritual evolution is individual¹ in man. Universal life reaches its full individualization in each man ; whilst in the animal and plant it is collective,¹ the real individual being the whole species, so that what evolves is the collective life of the species, not the members of it. Each man's life is the life of an Ego who has evolved differently from all others and whose organizing powers are individually unique. Each man's life is subject therefore to its own spiritual heredity ; India calls that heredity Karma, and it is according to Karmic law that each man is led to such race and family as will provide him, through psychic (social) and biological heredities, with the organism corresponding to his needs at his present level of evolution. It is always within the spiritual integration of the individual's triple heredity, spiritual, psychic and physical, that the Ego organizes his thoughts and feelings and bodily activities.

It is clearly apparent from such a conception that if the unity of the psychic and biological levels is affected by the spiritual, any disturbance brought within the relationship joining the self and its psychic levels, will also bring disturbance in the activity of the body itself. In other words, function whether bodily or psychic, depends on the spiritual self within whose unity all functional activities

¹ Vide infra, p. 23—ED.

are integrated. Of course there may be congenital diseases, whether organic or mental, due to the corresponding heredities of the parents and of the social milieu. But whatever insufficiencies may have come to the self in this way (and we have said that these heredities are never really exterior to the self whose own Karma they reflect), the notion of health is always one of harmony between the spiritual self and its functional levels ; the concept of disease is always one of disharmony between the spiritual self and its functional levels.

In a theosophical system, function is always considered as previous and causal to any material organism.¹ With especial regard to the physical body, Theosophy affirms with India that within and above the physical organism there is a functional organism which ancient India called the vital (Prānic) body, and which modern Theosophy calls the etheric double. Anterior to the body as provided in advance by the entities expressing Karmic law, it is also causal, guiding as it does the building of the physical body within the mother's womb, and continuing that function after birth and throughout the individual's existence. It is the necessary intermediary, therefore, between the self and the psychical functions on the one hand and the body on the other. A healthy relationship is maintained if the self preserves its autonomy over psyche and body, integrating them within its spiritual active unity. This functional body therefore brings to the organism : (1) its vital powers and the activities of its various organs ; (2) the activity of the self as interpreted by its psychic levels. As Prāna or life is a power similar to physical electricity, it might well be called an electric body or structure.

Such are, in their broadest outline, the tenets of Theosophy concerning life and health. We might sum them up as follows: (1) the unity of life ; (2) the expression of life on a ladder of levels ; (3) the law of subordination of the lower levels with regard to the higher, and of mastery of the higher with regard to the lower ; (4) in man, the spiritual nature of life and the integration of psychic and physical activity within its autonomy and mastery ; (5) functional health means the fullest possible subordination of psyche and body to the spiritual self ; disease means disturbance in that subordination. For Theosophy, therefore, function can never be an epiphenomenon of the organ, *i.e.*, a mere state of activity of the organ ;

¹ Vide p. 131, Vol. I, this series.—Ed.

function transcends, creates and directs the organ, providing activity to the organ with its own energy. Physiology is dynamic, and its dynamism is an entity *in se*.

To this theosophical conception of physiology we shall now relate the latest developments of modern Science. Modern physiology is conceived of within the great evolutionary theory according to which plant and animal species are not separately created by an extra-cosmic God but represent successive stages in the evolution of life, each kingdom, and within it each species, constituting the rungs of the evolutionary ladder. Life's unity is therefore clearly admitted, and as clearly proclaimed is the subordination of the lower levels when integrated within the higher. We find in man therefore, successively developed through the embryonic period and contemporaneously after birth, the physical and the psychic levels of the plant and of the animal: the plant represented by the cellular and humoral systems, the animal by the dual nervous system in which the middle brain and sympathetic level correspond to the invertebrates, and the cerebro-spinal corresponds to the vertebrates; the activity of both being under subordination to the conscious energy of the self.

Modern physiology has now reached a synthetic conception of man. The traditional distinction between body and soul, the former belonging to medicine, the other to the Church, had its continuation in Science, in the last century, as the division between physiology and psychology: physiology dealing with the body alone, psychology with the mind alone. Until quite recently, psychology was taught in the Faculty of Arts, as part of moral philosophy; biology and physiology were taught in the Faculty of Science; medicine had its own Faculty and dealt with disease alone. The science of man and of his health has now reached its synthesis.

How this synthetic view of man's unity has been obtained by physiology can be briefly summarized. Some organic disorders were found to arise from purely psychic sources. In hysteria some unconscious wish of the patient produced functional diseases which suggestion could remove. In hypnosis mere suggestion was seen to bring about functional and organic disturbances or wounds. More recently, psycho-analytical studies have revealed that the physiological functions can be disturbed

deeply by affective traumas caused by early environment. In these and in many other cases the influence of the psyche, whether conscious or unconscious, on the functional activities of the physical organism causes organic disturbance to appear: a clear indication of the close relationship existing between the mental and the physical constituents of man's unity.

Medicine has benefited more than any other science by this change. Diagnosis is now defined as "the understanding of the whole patient".¹

A synthetic conception and intuitive vision of the whole body and mind of the patient. . . . The diagnosis of the organ syndromes, of the psycho-endocrino-humoral syndromes, of the etiological factors, and of the constitutional factors, does not really constitute the diagnosis of the person. The person is something more than a sum of parts. He is an integral whole; thus the real diagnosis of the person consists in grasping the whole of the individual in his purposive striving towards cure.¹

It was inevitable that such synthesis should be held by materialists as a victory for their philosophy: that to a certain extent the mind should be claimed as belonging to the organism, as a function of the brain. The most radical of these materialistic views is that of the behaviourist. For

Dr. Watson and his followers, consciousness is denied as a specific entity and considered as a mere "titillation at the back of the larynx". The unity of the individual has its centre in the material body, not in the self, and no separation is allowed between the psychic and the physical. *Behaviour* or the active relationship of the whole organism with the environment, social and natural, synthesizes structure and function, thought, affects and action. We have here, as in Theosophy, a vision of man as a whole: self, psyche and body, but integrated at the other pole—matter, not spirit—and we might despair of human progress if other discoveries of modern Science were not of such a kind as to uphold our most fervid hopes.

• • • In fact it is from the very science of matter that materialism as a metaphysical attitude has received its death-blow. Recent progress in chemistry and physics, or, to be more accurate, in physical chemistry, compels us to deny for matter any existence *in se*: matter is but a state of energy. Energy, not

¹ Dr. A. P. Cawadias.

matter, is the absolute reality of our physical world ; dynamism replaces materialism.

It was impossible that such a momentous change in outlook should not cast its reflection in those domains of science in which matter holds a place. It has been so in physiology. Life can no more be identified with living substance and its purely chemical processes than physical energy can be viewed as a property of matter. The theory of life as combustion is now being superseded by one of electrical induction. The body can no longer be likened to a machine run by heat, and whose activity is measured in calories ; it has become an electric engine. Both in the cellulo-humoral and nervous systems, electricity is found to play an all-important part.

1. *In the humoral system.*—Because living substance is in its nature colloidal, whether in the flowing humours or in the plasma of the cells, its isolated particles carry (or are carried by) electric charges. These charges, in a state of constant mutual interaction, constitute a highly differentiated electric lining to the somatic substance of the body, whose chemical and organic complexity it espouses, and whose activity it commands. In the field of comparative physiology,

The Importance
of the "Electro-
Structure"

Professor Jagadish Chunder Bose had already shown the existence and the physiological importance of this "electro-structure" in the plant ; Professor d'Arsonval of Paris and Professor Tchijewsky of Moscow have investigated its activity in the animal and in man, the latter further establishing that its tension, now equated to the vital tonus, is maintained by the electrical charges in-breathed with the air and carried by the blood from the lungs to the cells.

2. *In the nervous system.*—A very broad field of experimental enquiry has been opened by the study of nervous energy. It has been found that the energy that runs along the nerves and is the functional activity of the organism, is very similar in nature to electricity, and can be substituted, for purposes of experiment, by electric currents of identical intensity. By applying precise methods of measurement it has been discovered that an equal complexity exists in the electro-structure that lines up the nervous system, with that already indicated in the humoral system. The speed at which the electricity runs along the nerve depends on the particular function it commands ; and that rate, or "chronaxie", is characteristic of all the area

The Study of
Nervous Energy

belonging to that function ; there is one speed for the flexor muscles, another for the extensor muscles, another for tactile sensitivity, etc. An incitation of a certain speed will thus be transmitted only to those nerve-cells and organic cells having the same chronaxie, that is, belonging to the same function.

As another monograph deals with this particular line of research and its connection with the etheric double, we need not describe further the electro-structure. Its immense value for us lies in the fact that it represents a veritable functional organism, orienting the thought of physiologists, as it undoubtedly does, towards the conception of function, or vital energy, as distinct from, and causal to, the material organism, subordinated moreover to the activity of consciousness, whose harmony or disturbance it imposes on the organism.

Two words, then, would describe the trend of modern physiology out of materialistic determinism : (1) individualism, (2) functionalism.

As a result of this investigation into the realm of function, it is now ascertained that " more than half the diseases from which mankind is suffering are purely functional, that is, devoid of organic lesions ".¹ They are produced by a disturbance of the equilibrium existing in the normal state between the various functional levels, nervous, glandular, circulatory, etc. On the other hand, many organic lesions, whether congenital or acquired, with which a happy life might have been possible, are often complicated by fatal functional disturbances due to " inferiority complexes " (well studied by Professor Adler).

We are thus led to mention the progress made by physiology in the direction of functional hierarchy. The levels are three : (1) the humoral, (2) the autonomous, (3) the voluntary.

The humoral has for its essential function the regulation of all the chemical processes going on within the cells, and called " metabolism ". This function is under the rule of the glandular system. The chemical elements absorbed in food or otherwise are first turned into colloids by the various digestive processes, that is, by the glands of the digestive tract, then passed into the blood, finally to be distributed as reserves or for immediate use by the endocrine

¹ Professor Abrami.

or non-endocrine glands, the latter being now known to possess endocrine functions also.

The Secretions
of the Endocrine
Glands

Impossible as it is to do justice to the enormous labour of physiologists in this domain, we must mention the magnificent work done to isolate and classify the secretions of the endocrine glands, and of certain categories of cells, like the nervous cells of the autonomous system, now found to secrete hormones also. This research has been carried far enough to have gained for physiology a synthetic vision of the whole humoral system, and of the wonderful subtlety with which it meets all the needs of the organism and keeps the specifically "human" chemical equilibrium: the thyroid dealing with iodine, the pituitary with bromine, the parathyroids with calcium, the suprarenals with the alkalies, the liver and the pancreas with sugar, etc. The quantity of water in the cell-colloids is maintained as well as the chemical constitution of the various tissues.

Thermogenesis

But together with the discovery of the electro-structure, and of the electro-exchanges with the outer milieu taking place constantly, both through breathing and through digestion, another function has been seen to belong to the glands, regulating the various metabolisms, *viz.*, the regulation of cellular tension, which, under another aspect, is that already known as the regulation of heat (thermogenesis).

The Plant Stage
in Evolution

It cannot now be doubted that, complicated for animal and human use as the specialization of the glands makes it, this humoral level represents the plant stage in evolution, and that the development of the germ-cells, with the process of sexual fecundation, belongs to it.

The Autonomous
Nervous System—
The Animal Stage

The second level, that of the autonomous nervous system, introduces us to the animal stage, the invertebrate half of its series, in which it constitutes the whole of the nervous system. Centred in the middle brain, round the third ventricle, it rules the humoral level, of which it commands the organs and functions, by means of the sympathetic and parasympathetic systems of ganglia and nerves. The closest relationship is now known to exist between the middle brain and not only the viscera but also the somatic or cellular elements. Its functional activity embraces the whole physiology of the previous level, and has been termed on that account, vegetative. It is generally admitted that the two systems

composing it possess a mutually contrary and compensating action, the one exciting certain organs and the other inhibiting them : the sympathetic, for example, exciting, and the parasympathetic inhibiting, the heart-muscle, the vessels, the sexual glands, the liver (in its metabolic functions), the thyroid (also in its metabolic action). The parasympathetic, on the other hand, excites, and the sympathetic inhibits, the lungs, the whole digestive tract, the kidneys, the pancreas (metabolism), thymus, parathyroids, and even the thyroid in its reserve function.

Wherever an organ opens or closes with a sphincter muscle, there is a cross action of the two nerves : the parasympathetic exciting the organ and the sympathetic the sphincter, and inversely. The secretion of the non-endocrine glands is marked by a similar cross action, the sympathetic giving a thick, concentrated fluid, the parasympathetic a more diluted one.

But the main function of this level is to regulate the general metabolism, to maintain the continuity of the basic humoral composition, (both chemical and physical), of the acid-alkaline equilibrium of the humours, by releasing water through the skin or kidneys, by pouring this or that endocrine secretion, by increasing the tenor of the blood either in alkaline (calcium, potassium or ammonia) or in acid ions. This, as we have seen, results in what has been called "vegetative tonus", and in nerve excitability.

This equilibrium is constantly watched over by the middle brain centres, modified according to the needs of the moment with wonderful quickness and subtlety ; in fact, to this level of animal and human constitution belongs the instinctual and the affective aspects of consciousness. The preservation of life-instinct has its seat there, and the various emotional states are only alarm-bells which that instinct rings, so that the organism is immediately adapted to its present needs. Danger appears and the emotion of rage or fear is set up ; instantly the suprarenals will discharge adrenaline into the blood-stream ; excited by that hormone, the blood-vessels will contract ; the blood will course quicker and at higher tension ; there will be an increase of energy. On the other hand, the liver will be set to discharge some of its reserve of sugar, *i.e.*, muscle-food ; the body is prepared to defend the life ; it is ready for fight, or flight. Simplified as is this description, and more suited to animal than human situations, it is nevertheless true of man, with all the complexities that

Sympathetic and
Parasympathetic
Systems

The Acid-Alkaline
Equilibrium

Adaptations of
the Organisms
to their Needs

the social environment can add to the natural. It is no wonder, therefore, if the middle brain and sympathetic physiology assume an increasing importance both in medicine and in education. Emotional disturbance, often consequent on wrong education in the pre-puberty period of the child's life, leads to functional disorders at this level, and to functional diseases when the disorders become habitual.

We shall close this too rapid review of middle brain physiology by mentioning the fact, now well ascertained, that the nerve-current runs along its nerves, and in the organs under its rule, in a specific way, significantly differing from the corresponding process in the cerebro-spinal system. Its chronaxie proceeds, not by quick and intensive discharges, but by slow, weak and repeated discharges, by "sommation" as it has been called. As a consequence, this method of stimulation gives to the organism its staying power, its quality of persevering. It shows that nature has disposed that the emotional state is not meant to act as a shock, thus brutally destroying the balance of the whole organism, but as a gradual warning, reaching intensity, if needful, by degrees. Action, on the contrary, must respond at once, and needs immediate intensity, and that is rendered possible by the immediate conduction of the myelinated nerves in the higher brain systems.

The third physiological level is represented anatomically by the higher brain, its two hemispheres, the cerebellum and spine, with their afferent and efferent nerves. It has been developed in the vertebrates, slowly covering up the middle brain and gradually pushing forward its frontal lobes. Its essential function is mental activity, that is, voluntary relationship between the individual and its environment.

As the middle level has been seen to have assumed intimate co-ordination with the humoral, so do we find, as study proceeds, more and more intimate anastomosis between the two nervous systems. All along the spinal cord, the sympathetic ganglia form a double chain, abundantly related to the three columns on each side of the cord within the vertebrae, (two sympathetic and one parasympathetic), and to the spinal nerves, by means of the communicating branches, one white and one grey for each nerve between the 2nd lumbar and the 8th cervical. Above the 8th cervical, the anastomoses become more complicated and intimate still. Within the brain, besides

The Middle
Brain and the
Humoral System

The Third Physio-
logical Level and
the Higher Brain

The Higher Brain
and the Nervous
System

the region at the base of the hemispheres, which is common to the two levels and comprises some of the most important centres in the whole human economy, recent research has discovered sympathetic nuclei imbedded within the substance of the hemispheres, and also some deeply penetrating sympathetic fibres.

Functional unity, as well as structural unity, marks the three-levelled human organism. Each level is held in subordination by the higher ones ; all (for there are sub-levels in each) are integrated in the topmost. This law of subordination has been verified both in the normal and

The General
Law of Level
Subordination

in the pathological state. Not only does the inhibition of the higher suppress its own activity ; it also liberates from its brake the activity of the lower, which it ceases to control, and which, if stimulated, may become anarchically active. A muscle can, in fact, be set in motion by three different nervous levels : (1) the spinal neurons for the reflex action ; (2) the middle brain (thalamostriate) centres for automatic action ; (3) the higher brain (cortical) centre for voluntary action. It is now well known that automatic movements in the waking state, that is, when the conscious self is present in the higher brain and ought to inhibit the lower motor levels, are indicative of some lesion, either organic or psychic paralysis (or both) in the hemispheres or at the origin of their nerves. Thus the specific rigidity of the decerebrate animal, and of partly equivalent lesions in man : Parkinsonian and Wilsonian rigidity, produced by the general contracture of all the muscles, consecutive to lesions of the striate or pallidum centres ; these lesions being demonstrated by the loss of spontaneous, voluntary movements.

To a similar deficit of the higher centres are due, by liberation of the lower, some exaggerations of medullar reflexes or automatic movements, whether isolated or grouped in violent crises, as in epilepsy. Many and varied are the verifications of this general law of level subordination.

But many and varied also are the proofs attesting that the three

Self-Consciousness
in Man subordinates
all the three Levels

levels together are held in subordination by self-consciousness in man, by the consciousness of the species in the animal. In psycho-analysis, the free expression of the repressed affects is only possible when the higher consciousness has been removed by relaxation ; a similar condition is necessary for the establishment of conditional reflexes, and hypnosis can only obtain its automatic responses if the subject has lost the use of his self-consciousness.

Contributory proofs of this subordination of the lower to the higher levels and of all levels to self-consciousness have been obtained; functional disturbance has been restored to health by stimulation of the weakened higher level and re-education of the latter to permanent mastery. These experiments have shown that the relationship of self-consciousness with its physiological levels can be of two kinds: (1) it can associate with them "in weakness", and then disturb the physiological subordination by stimulating a lower level unduly, particularly the affective; (2) it can associate with them "in strength", and then assume complete mastery over them, not disturbing the subordination of the levels whichever it may stimulate, if their subordination of all to the self is maintained.

This law explains the physiological feats of the Hatha-yogi; it would explain the psychological feats of the Raja-yogi as well.

In the "ordinary man", health (functional) is insured if the man associates his self-consciousness with his highest level (and that is apt to change with his race). Thus is the subordination of the lower levels preserved. Living "at one's highest" is therefore the surest medical prescription. Physiology no longer excludes the domain of ethics: it has discovered the unity of the whole man.

All physiologists, however, do not perceive the physiological importance of the self in man. Fixed upon the old position of materialistic physiology, they only accept as functional that which they know to possess anatomical bases. Now the activities of that which is really human in our consciousness are devoid of localizations in the brain. There are no "convolutions" for science, art, religion, no centres for the "ideals". Hence the errors of many psycho-physiologists; some of whom exalt the unconscious processes above the self, the psychic above the spiritual, by endowing the unconscious with the essential character of spirit, *vis.*, universality (the cosmic unconscious of Freud, the social unconscious of Jung), some of whom also reduce human consciousness to cerebral "reflexes", (Pavlov's conditioned reflexes), without seeing that they can only obtain them by first eliminating the self, and substituting their own (the experimenter's) self for it.

This review would be incomplete did we not mention that "dynamic" physiology has obtained in this domain of subordination its greatest triumphs, that the measures of "chronaxie" have established its truth upon irrefutable experiments, showing moreover that the current of life-electricity along the nerves and within the organs *is* the function, that life in man is an energy, a dynamic sum of the various forms of energy present in man, *viz.*, biological, psychical, spiritual and the purely physical (material). Only it may be that the organization proper to spiritual life develops its forms in the social—that is, specifically human—rather than in the specifically animal, that is, cerebral.

To the theosophist the value of the new conceptions of physiology in the domain just examined lies in the fact that they inevitably lead to a trinitary conception of man's constitution, and do away with the dualistic tradition of post-Nicene traditional Christianity. Man can no longer be considered as body and mind, but as a ladder of functions, some bodily, some psychic, over which is playing the free dynamism of the spiritual self.

The lines of research leading to such conclusions must be briefly indicated. If the consciousness of man and the autonomy of the self were of psychic nature, they ought to reside in the higher brain or cortex. A considerable amount of work has been dedicated to the physiology of higher brain consciousness. But however much analytical experiment and clinical observation may have advanced, it is safe to assert that only animal functions have been localized so far. Centres exist for sensory perception and muscular action; but none for the higher functions proper to human consciousness: science, religion, ethics, art, which hold such a place in civilization and in private life. These have no organic counterpart in the structure of the higher brain. Even language, so different from animal sounds, is now known to possess centres for the sensory or the motor functions that spoken expression needs; for word-reading, word-hearing, word-speaking, but none for the spiritual function of word-understanding, and for the complex organization of morphology and syntax.

. It has been suggested on plausible grounds that the frontal lobes participate in pure intellection; but cases are known where the destruction of one or both frontal areas has not interfered fundamentally with intellectual activity. The primary elements of thought are localized, but the

Life is a dynamic
Sum of different
Forms of Energy

Trinitary Concep-
tion of Man's
Constitution

The Consciousness
of Man is above his
Psychic Nature

symbolical identification, the interpretation of meaning, has no organic basis in the brain. Localization becomes more and more uncertain as we rise from the psychic elements already present in the animal to the activities belonging to man's consciousness itself. That consciousness we find ascending and descending on the ladder of its function, acting as dynamism pure and simple. Physiologists now repeat in their technical language what Bergson used to say in philosophical terminology, that what can be localized in the brain is less the function of consciousness than the keyboard through which it expresses itself spatially. The angel ascending or descending on Jacob's ladder, cannot be identified with that ladder. Whether it be described as spiritual or otherwise, it is looked upon as pure dynamism, the problem of its source and origin being at the fore-front of physiological research without having yet found a solution. Some materialistically inclined would find it in the middle brain, the centre of humoral and cell chemistry. Some psychiatrists, and especially the more spiritually inclined of that school, like Professor Jung of Zurich, would find it in the social unconscious. We have no space here for discussion of these theses.

In another direction, viz., the unity of the body and its environment, we have to record another step taken by physiology towards the theosophical conception outlined at the beginning of this monograph. Just as within the body the purely physical function was found to be a dynamic entity flowing along the nerves and ruling organic activity, so has the humoral and cellular function been seen to be equally electric in nature. The colloidal constitution of living substance has for its counterpart an organized "lining" of electrical charges. The chemistry of the cells and their metabolism has to be maintained by borrowing food and air from the environment. It has now been ascertained that, besides the chemical exchanges of breathing and of digestion, a much more important electrical exchange takes place between the organism and its environment. What we really eat and breathe are ions, i.e., molecules plus electrical charges. These charges represent an all-important factor in the maintenance of the vital tone or tension of the organism. We shall only add that medical applications of this

An organized "lining" of electrical Charges

Chemical and Electrical Exchanges

discovery have been started, and a number of functional diseases are being treated with ionic cures, the ions being natural or artificial.

* * * * *

Having thus briefly summarized the general lines of advance of modern physiology, there remains for us to examine a few special points of interest for theosophists.

The first refers to the value set by physiologists upon the middle brain and particularly upon the pituitary body. It has been found that a special relationship unites the pituitary gland with the roof of the third ventricle on the one hand, and on the other with the whole system of ductless glands throughout the body. Theosophists will remember that Madame Blavatsky ascribes to the pituitary gland a special relationship with the psychic (astro-mental) consciousness of man. She describes it as the centre of astro-mental clairvoyance. Also, as in sleep the astro-mental constituents of man leave the body, the pituitary gland can be described as the organ through which these psychic principles of man can communicate with the physical world, entering it, leaving it, bringing into it its knowledge or ignorance of its own plane.

Now physiologists have ascertained the rôle of the pituitary gland in sleep, that is, in the coming in and the going out of consciousness. The exact centre causing sleep has not been found with precision, but it is known to lie broadly in the grey matter forming the vault of the third ventricle, and the function regulating sleep is under the control of the pituitary body, whose secretion more or less highly concentrated in bromine is carried to the vault of the ventricle and starts the inhibition process of sleep. With this inhibition or shutting off of consciousness, the automatic processes are liberated; some reflexes are reversed during sleep as they are in cortical paralysis; the chronaxie of subordination disappears and only that of constitution remains; all synthetic activity also disappears: the images, isolated from their ordinary conscious associations assume new combinations, and linked up by emotions and freed from the control of memory and reasoning, produce the drama of dreaming. The diseases affecting sleep are generally associated with disturbances in the middle brain, some tumours of the pituitary gland can cause the sleeping sickness, *i.e.*, prevent consciousness from returning into the body; other pituitary

¹ Vide p. 367, Vol. I, this Series.—ED.

troubles prevent sleep altogether, *i.e.*, make it impossible for consciousness to leave the physical body.

Another recognized function of the pituitary gland is to control the development of the body to suit the development of consciousness; it exercises this function through the other ductless glands, and has deserved on that account the title of conductor of the glandular orchestra. The chief change, however, which it brings into the organism, is the awakening of the genetic function by stimulation of the sexual glands.

It also possesses among its many-sided activities that of defending the organism against toxins; the main interest of this function here being its relation with the eyes, in the fact that it is only active in the darkness. It has been shown that the elimination of the toxins of fatigue is not due to sleep but to the absence of light. Thus do we find in these recent discoveries of physiology some vindication for the contentions of Theosophy, and an indication of the lines that might be followed to make those corroborations closer and more complete.

If the corroborations of Science are satisfactory enough concerning the pituitary body, not so clear are the indications with regard to the pineal gland. According to Madame Blavatsky the pineal is to the pituitary what Buddhi is to Manas; it should be the organ responding to the light of pure thought and of the intuition. In one direction, at any rate, the old conceptions regarding the pineal are being altered. It used to be considered as a discarded third eye. Whilst this statement cannot altogether be denied with regard to the saurians, physiologists have discovered in the pineal specific functions which make it an active centre in man. Anatomy, histology and physiology concur today in considering it as a glandular body of considerable importance, not only during the first years of life, but also in adult age and far into later years. Some physiologists consider it as acting on the nerve-endings within itself, and through them on the whole middle brain region and on the glandular and nervous system it commands. Such function alone would place it in a position of authority over the pituitary. But if we add that such stimulation of the centres of growth during the early years after birth is completed by a specific action again at the time of

¹ Vide, 367-8, Vol. I.—Ed.

² Vide, pp. 358-9, 367-8, Vol. I.—Ed.

puberty, we shall make it clear that modern Science has ceased to consider the pineal as a disused organ.

The functional superiority of the pineal over the pituitary is further enhanced by the fact that it inhibits its action, just as a higher level is known to inhibit and control the lower. The pineal will prevent the pituitary from awakening the sexual functions too soon, and act as a check on the anterior lobe of the pituitary.

The Pineal Controls the Pituitary

Many other pineal functions are suspected: the elimination of uric acid, the intra-cerebral circulation (this would have to do with the activity of the thought-processes), the secretion of the cerebro-spinal liquid, the regulation of arterial pressure, the metabolic processes, etc. But these indications, if they point in the direction of a positive value being allowed for the pineal, are too fragmentary and unsystematical to satisfy physiologists. Yet these studies have confirmed to the full the statements reasserted by Madame Blavatsky concerning the deposit of granular concretions of calcium salts, which is found to be absent in the case of very old persons as well as in the case of very young and retarded children. The link between this concretion and the activity of intelligence is now much more generally recognized.

The Pineal Gland and Intelligence

Even such slight recognition is valuable. The relationship between pineal action and sex-development brings into play a precious argument in favour of the association of the pineal gland with the spiritual nature of man. In fact, if we compare the age of puberty in the animal kingdom with that in man, we find it considerably more precocious in the former than in the latter. It takes less of a lifetime to bring the animal body to adulthood and prepare it for reproduction than it does in the case of man. Actual figures are of course difficult to state. But it can be said safely that in many animal species highly placed in the evolutionary scale, the pre-puberty period may represent one-twenty-fifth of the total duration of life, and the gestation period is correspondingly short. In man, however, the pre-puberty period represents on the average one-fourth or one-fifth of life's duration, and gestation is relatively very much longer than with the animals. Now if it is the pineal gland that checks the awakening of sex until the more definitely human qualities of consciousness have appeared, it is difficult not to consider it as, in some way, linked

The Pineal Gland and the Spiritual Nature of Man

to the spiritual nature of man. It would mean the spiritual checking the animal, therefore controlling and transcending it.

* * * * *

We have already mentioned the corroboration which physiology brings to the theosophical notion of the unity of life in the organism and in the environment. Besides the chemical and physical exchanges already known to exist between the body and its natural milieu, an electrical exchange has been discovered to exist also, bringing the unity of body and universe to the level of pure energy. Another link has been found between man and the other kingdoms of nature, revealing a similar activity of life throughout its progress, that is, the similarity of vitamins in the plant to the glandular hormones in the animal and man.

The vitamins are no longer now the mysterious elements they were considered to be only a few years ago. Most of them have a well-known molecular constitution, and their action has been asserted to be one of vital stimulation only. They act as catalysers, and infinitesimal quantities are sufficient to stimulate specific functions in the vegetable and in the animal or human bodies. First discovered in the plants, they have been found to exist also in some animal constituents, particularly in the reserves accumulated for the growth of the embryo and of the young body.

On the other hand, substances of similar composition have been found in the animal. Vitamin C, for instance, develops in some plants which are particularly rich in chlorophyllian pigments. The rat, the cat and the pigeon are able to build up a hormone of identical constitution. Now if Vitamin C diminishes in quantity in the leaf of a plant, there follows a diminution of the green pigment in the leaf; the plant becomes pale. Similarly a diminution of Vitamin C in the food of the animal entails a diminution of hæmoglobin, the red pigment in the blood.

Very curious examples of such correspondence have been discovered of late. A plant is known (*aristolochia elejans*) possessing various coloured pigments to the exclusion of the yellow. It cannot grow, it is said, out of seed unless it receives the blood of a small fly which contains a carotinoid hormone akin to Vitamin A.

The relationships between vitamins and the endocrine system are now certainly established. The absence of vitamins brings disturbance in the glandular functions of the animals and of man. Scurvy, which is due to an absence of Vitamin C from food, is accompanied by an abnormal development of the suprarenal glands. Physiology has ascertained the correspondence of Vitamin C with the suprarenal hormones, of Vitamin A with the thyroid, of Vitamin E with the kidneys and gonads. The suprarenals and the liver are known to store up vitamins. Therefore Vitamin E acts exactly like the hormone secreted by the anterior lobe of the pituitary, Vitamin D like that of the parathyroid, and Vitamin B has an antagonistic action towards the thyroid gland.

Finally, significant correspondences have been discovered between certain animal species and certain vegetable vitamins. Some animals are sensitive to the presence or absence of Vitamin A or D in their food, others to Vitamin B, and have no need of the other vitamins for their healthy development and maintenance. Each species seems to possess a specific endocrine synthesis which is its own. In man, however, this difference of reaction appears in the individual.¹ Each man seems to possess an endocrine constitution of his own, and therefore to be equivalent to a whole animal species, needing on that account a special alimentary regime.

Learned agriculturists know today that plants have a metabolism of their own, and that a relationship exists between their vitamins and the chemical constituents of the soil which are their food. A solidarity is thus seen to exist between all the kingdoms of nature; a correlation between chemical bodies (ions) in the mineral, vitamins in plants, and hormones in the animal and man. One physiologist has written that "it is our hormones that make us what we are".

The unity of method used by life at all the levels of its evolutionary ascension, testifies to the unity of life itself. No doubt only one strand of life's thread has been identified by modern Science. Yet are we far from the irreducible multiplicity which the Christian tradition had imposed as a dogma concerning creation. An enormous advance towards the theosophical conception of life's unity has been made only

¹ Vide infra p. 23.—ED.

lacking in a definite synthesis. But all the elements of the synthesis, at least many of them, are available. A satisfactory synthesis is near at hand.

Our review of physiological advance would be incomplete, did we not mention another field of research in which discovery has gone far towards human evolution as described by modern Theosophy. It concerns the physiological background to racial evolution. It has been discovered that the humoral basis of constitution, namely the blood and its harmonic constituents, appears in four great divisions and that these "blood-groupings", as they are called, are somehow related to racial groups. Thus has physiology entered the field of anthropology.

The principle on which the classification of the groups has been made, is the capacity for some human bloods to mix up with one another without causing flocculation or agglutination. As this flocculation brings shock phenomena of the gravest character, and very quickly death, it has become necessary to classify the different types of blood according to their mutual friendliness or enmity. Four groups have thus been detected, respectively termed O, A, B, AB. In the A group, further sub-divisions of the A group, termed A₁ and A₂, have been detected. Their properties are as follows: group O can be mixed with all without danger and has been called "universal giver"; group AB can receive from all but only give to itself, therefore is called "universal receiver"; group A can give to AB and to itself and receive from O and itself; group B can also give to AB and to itself and receive from itself and O.

Important as they are from the medical point of view since the development of blood-transfusion, these groups interest us here especially because they have been studied in connection with anthropological groupings, and it has been found that a correlation exists between cross-breedings and the number of these groups. Where the population is pure, group O is almost alone throughout the population. Where cross-breeding has prevailed more blood-groupings appear. Group O is present everywhere and would seem to represent the fundamental, primitive race of man; whilst A and B would represent superadded mutations, with dominant mendelian character, O possessing the recessive mendelian character.

Now O is in present-day mankind the most important group in 40% of the population of the globe. If we take into account its latent state among groups A and B, it would represent 60% to 70% of mankind, as against 15% to 20% of A and as many of B; the majority of physiologists seem to agree that O is the most ancient blood and A and B later additions. Important also would be the fact that groups A and B, identical to those of man, have been discovered to exist among the anthropoid apes, although the results are quite different for the lower apes.

If we compare these data of anthropological physiology with those of *The Secret Doctrine*, we are confronted with very interesting parallels:

Theosophy and
Anthropological
Physiology

(1) According to Madame Blavatsky there remains no pure Third Race population. The present negroid¹ tribes are hybrids of seventh sub-race Lemurians and first sub-race Atlanteans. Now blood-grouping research shows that there is only one pure blood, that of the Fourth Race in the Esquimos and American Indians of pure descent. Among these the O blood is all-triumphant. Everywhere else the three differentiated factors are mixed up in varying proportions.

(2) Among peoples belonging to races that are impregnated with Atlantean blood,¹ like various branches of the Malay group and Chile population, one finds a clear predominance of factor O with a secondary predominance of B over A. Among the negroids, factor O still dominates but factors A and B are balanced. Factor B tends to dominate over A where Lemurian blood is still strongly marked. Finally, as we near the white races of pure type, we see factor B disappearing and factors A and O balancing. Let us note that the Slav group of Central Europe, in whom we may think that some admission of Asiatic blood has come, shows a higher rate of factor B. Among Hungarians, Tartars, Siberian Russians, group AB is particularly strong; it is dominant among the Persians.

All this is in agreement with *The Secret Doctrine*. It would be normal, if the Fourth Race is, as Madame Blavatsky puts it, "the first really human race", that its blood should be in possession of the basic serum that all men can receive without danger. Factor B would represent the Third Race; factor A the Fifth.

(3)* Results obtained from the study of animals are no less striking. According to *The Secret Doctrine*, the anthropoid apes are a cross between

¹ P. 383, Vol. I.—ED.

the Third Race man of the last sub-races and certain higher animals. It is therefore remarkable that the anthropoids alone show the human blood-factors.

The Rh Factor
in Blood

Another blood factor, very important from the evolutionary as well as anthropological viewpoint is the Rh factor discovered in 1940. The blood cells of the *Macacus rhesus* monkey, when injected in an experimental animal, produces immune serum, which agglutinates the cells of certain human beings. These individuals are known as Rh positive, while those individuals whose cells fail to show agglutination with this immune serum are known as Rh negative. This outstanding link between man and monkey also serves as an additional type on which anthropological classification of the human races is made.

Its Importance in
Medicine

The blood factor Rh is also of medical importance in the mating of the Rh positive man with an Rh negative woman. If the Rh negative woman conceives, the foetus, inheriting one paternal gene, contains the Rh substance in its blood cells. During the course of gestation, when the foetal and maternal circulations are linked, the Rh positive foetal blood enters the maternal circulation. The antigen Rh, being foreign to the maternal system initiates the production of antibodies against the Rh substance. When the maternal blood enters the foetal circulation, the anti-Rh antibodies present in the maternal blood react with the Rh positive red blood cells of the foetus and give rise to a foetal disease, varying in intensity and symptoms, known as Erythroblastosis foetalis. This condition of the foetus can take place only if the man is Rh positive and the woman Rh negative. It is generally excluded in matings where (1) the man is Rh negative and the woman Rh positive; (2) both are Rh positive and (3) both are Rh negative.

Knowledge of the Rh factor in blood has saved thousands of lives. Prospective mothers are tested for Rh. If she is Rh positive there is nothing to fear. If she is Rh negative her husband should also be tested, and if he is positive the correct precautions are to be taken. If both parents are negative or both positive or if the mother is positive and the father negative, there will be no trouble. There is trouble *only* if the mother is negative and the father is positive.

According to more recent researches along lines of Fisher's Hypothesis of Triple Allelomorphs, the number of serologically distinguishable kinds of Rh would be 27. Then, too, we have the fact that the original O, A, B groups have now to be grouped under six heads—specially for Medico-legal work—by the discovery of the new factors A_1 and A_2 . This sixfold grouping is symbolized as O, A_1 , A_2 , B, AB, A_2B . It is also important to remember in this connection the discovery of two new factors M and N made in 1928 and P+ and P— described later so that the gradual increase in the number of blood groups from the original O A B may be tabulated as under :

$$\begin{aligned} \text{O, A, B} &= 3 \\ \text{O, A}_1, \text{A}_2, \text{B, AB, A}_2\text{B} &= 6 \\ \text{M, N, MN} &= 18 \\ \text{P +, P -} &= 36 \end{aligned}$$

Rh + and Rh —, with their 27
serologically distinguishable kinds=972

Then again we have the two genetically simple characters—"Non-Secretor" and "Non-Taster".¹ At this rate of progress, it looks as though the notion expressed many years ago by Landsteiner may soon be justified that blood groups would be known to be as individual to each person as the individual's finger prints. If and when this comes to pass, yet another postulate of Theosophy would be justified by Science, namely, the postulate that, in man, we have the absolute individuality of his organizing Life evolving from the collective individuality of the species as shown in animals and plants.

Whatever interest may attach to the progress made by physiology along various lines, momentous consequences are sure to follow the main developments here indicated. Physiology has discovered its own field of research: function is no longer a mere state of activity of the organ; not only the law of that activity, intellectually sought for and formulated. Function is a positive entity, namely, life in action; and life's organizing energy, i.e., energy with a content, is a positive reality. It is the task of physiology to investigate by direct experiment the various

¹ P. 124, *Science Progress*, January, 1949.

energies of life. It has begun to do so and must increasingly extend its research in the direction of the functional body of which ancient Theosophy speaks. There it will join hands with the more experimental side of psychical research. And Theosophy should co-operate with Physiology and with Psychical Science for the vindication of its ancient teaching by translating its metaphysics into experimental science.

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WESTERN SCIENTIFIC RESEARCH AND THE ETHERIC DOUBLE

By J. EMILE MARCAULT

The Main
Characters of the
Etheric Double

IN ancient Indian literature as well as in modern theosophical teaching the main characters of the Etheric Double are described as follows :

1. It is the mediating principle between the Karmic heredity of the evolving Ego and its physical vehicle.

2. As such, it must be understood to convey to the physical body (a) its vital energy, (b) the psycho-spiritual activities of the Ego.

One Indian school calls it the *Prāna-Māyā-Kosha*, i.e., a material sheath of the Self which is made of *Prāna* or Vitality.

Now *Prāna* is not a homogeneous force, not an undifferentiated fluid : it is the very complex life-energy of an Ego who has in lives past developed many tendencies, whether powers or weaknesses, and lends them to his physical body. The etheric double thus appears to be a highly organized individual complex of these vital powers ; various *prānas* are in fact mentioned, of which the singular *Prāna* is the synthesis or abstract unity. The word *prāna* means "outgoing breath" ; it is the life breathed out of the Ego's own spiritual plane into all lower planes, including the physical.

3. The differentiated vital *prānas* of the etheric double are the functional energies of the physical body. The physical body contains only organs ; the etheric body contains the functions, or active energies, which move the physical organs. For the ancient seer, as for the modern scientist, function is both the creator and the mover of the organ. The *prānic* body organizes, maintains and develops the physical organism ; being the outbreathed life of a particular Ego, it makes of the physical organism a vehicle of consciousness for that life.

The Functions
of the Etheric Body

4. An essential character of this vital energy, of which the etheric double consists, is that it is electric in nature, or similar to electricity. Of course, Indian literature does not speak in clear terms of what the moderns call electricity, but it often describes the constituents of the prānic body as "luminous like lightning" to the seer's eye. H. P. Blavatsky calls prāna "vital electricity".

5. There is another meaning to the term prāna in the East: it refers to the in- and out-breathing of the physical body itself, and is related to the very air we inhale and exhale. The two Prānas
The physical body then receives two prānas: that which descends from the spiritual Ego, and that which belongs to the physical plane and is borrowed from the earth's atmosphere. The higher makes the body alive as a human body, the lower keeps it in life as a physical body. We might well call the former positive, and the latter negative vital electricity. As every student of India knows, these two are recognized as two forms or levels of the One Universal Life, the Prāna of Brahman. ("From Brahman, the One, proceeds Prāna, or Life", says the *Mundakopanishad*. "From Atman is born Prāna", says the *Prashnopanishad*. "Prāna is the hub in which the seven spokes of the universal wheel are fixed", says the *Atharva-Veda*, Hymn to Prāna, XI, 4; "I am Prāna, Prāna is Life", says Indra, *ibid*.)

Let us now see what modern Science can tell us on the notions just exposed. On this point, as on other lines of advance, western Science is altering its previous mechanistic or materialistic attitude: it no longer considers energy as a property of matter, and secondary to it, but progressively adopts the contrary attitude, admitting matter to be a form of energy—energy primordial, matter secondary. It has been so in physics for some years, and it is increasingly so in physiology. It is now being asserted by physiologists that electricity has not only a part, but the most important part, in keeping the substance of living bodies alive. Living matter is colloidal in structure, and the colloidal state is maintained by the electric charges which keep the particles of substance, the mycelles, separate. It is not said that all colloidal substance is living, but it is affirmed that all living substance is colloidal, and therefore immediately concerned with electricity.

It is now known that the difference between dead and living matter is precisely this, that in death the isolated particles of the colloids lose their electric charges; they flocculate, coalesce, and become physically inert as they become electrically extinct. According to the most recent research, the "ageing" of tissues would be due to the loss suffered by them in the tension of their colloidal charges, and experiments have shown that susceptibility to cancerous degeneracy in some of the organic tissues would lie in the lessening of their negative charge. A lowering of the iso-electric point in the red globules of the blood has been observed from young to old organisms, corresponding to an increase of the acid index of the blood-serum, itself a mark of electro-positive excess. The vital tonus, then, is a function of the electric tonus, and all vital activity tends to be conceived of, no longer as mechanical, or as chemical, as it used to be considered, but as related to electricity.

Western conceptions, however, come nearer still to the Indian. To the infinite complexity of the physical body—its many different cells, the humours that flood them, the chemical compounds of which they are made—there corresponds an equal complexity on the dynamic side. There is an electric organization lining up the material organism. The expression "electro-structure" has been coined to designate it; well might it be called an electric body, were its autonomy better seen.

About its organization, much is already known. It would not be an electrical complex were it not polarized; not the minute basic polarization of the colloid charges within the cell-tissues or the humoral fluids, but a broader and more distinctly functional polarization. That portion of it which underlies the nervous system has been found to be electrically positive, while the portion underlying the cellular and humoral system is electrically negative. This research begun in Moscow, at the "Central Laboratory for Electro-biological Research", under Prof. Tchijewsky, is now being carried on in various countries by eminent biologists. It has been ascertained that while the body is sustained chemically by food, it is physically—that is, electrically—maintained and kept alive by breathing. It is the breathing which provides the physical organism with the electrical energy it needs to preserve its vital power. For we do not breathe air alone; we also inhale electric charges. Oxygen is not the only most precious element introduced into

our body by the respiratory function, but also the electric ions freely dispersed in our atmosphere. Gibbs, the physiologist has defined air, from this point of view, as a highly dispersed colloidal system. Air is known to contain ions of varying weights—light, medium and heavy ions. These ions have been weighed, numbered and measured as to their electric charges. A map of the world is now being made, with its electric climates, whose effect on the health has to be taken into consideration.

It has been found that the most useful ions for us to absorb by breathing are the negative ones. Positive ions debilitate the health, diminish the vital energy, whilst negative ions strengthen the vital energy and restore the disturbed functions to health. The blood, whilst in contact with the alveoles of the lungs, becomes the carrier of negative charges to the somatic system ; its albuminoid components being most highly charged, then the globulins, then the fibrins. This newly-discovered function of breathing has been called "electro-exchange", and as oxygen, the active element of metabolic activity, is the most electro-negative of chemical elements, its part in the maintenance of life-processes must not be described as chemical only (combustion) but as electrical also. H. P. Blavatsky associates it with Prāna.¹

Under the action of disease, the electric charges of one or another of the blood-constituents can vary within wide limits, and even change sign. With an increase of positive ions in the blood, the red globules precipitate and die more quickly than when the negative ions predominate.

It becomes clear, therefore, that the bio-electric function of blood-circulation is dual: (1) it keeps up the negative tension of the somatic system, and (2) keeps up at the same time the positive tension of the nervous system. The whole electric structure is thus maintained in a state of active efficiency, since the vital *tonus* is exactly represented by the potential difference between the two electric systems of the body.

¹ S.D., II, 627 (Adyar Edition, IV, 164-65).

How Negative
Ions act upon
Animals ?

Medicine has not been idle in following up the discoveries of physiology. Many functional diseases are now treated by the inhaling of negative ions, or the absorption of such special chemical ions as can compensate for particular deficiencies. Even the healing of wounds has been accelerated by the direct application of negative ions. Moreover, the relationship of the vital tonus with the electric tonus has been further confirmed by the results obtained with animals. The inhaling of negative ions has in fact brought about more vigorous growth in the young, quicker sex-maturation, thicker and longer fur, stronger and more numerous progeny.

Nor has physiology been less active in the study of nerve-electricity, the positive half of the human electro-structure. For nearly forty years now, in France, Germany and other countries, bio-electric experts, like Prof. d'Arsonval, Prof. Lapicque and many others, have invented methods for investigating and measuring the nerve influx. They have proved the interesting fact that the nerve-energy is not quite physical, nor is it quite chemical energy. It is, however, so similar to electricity that electricity can be substituted for it with the same physiological effects produced by nerve-power.

The methods are intended to ascertain at what speed the nervous or the electric energy runs along the nerves to move the organs into functional action. And wonderful results have appeared.

So well organized is this electro-structure that to each function corresponds a special speed of the nerve influx. Along the nerve ruling the function of a muscle, and through the tissue of the muscle itself, the nervous electricity runs at a particular speed. But along the nerve ruling a gland and through the tissue of that gland, there is another speed of the nerve-energy. Each function has its own "chronaxie", as that speed is called (from *chronos*, time, and *axis*, value). Sensory activity, muscular movement, glandular secretion, contraction or dilatation of blood-vessels, cell-metabolism, every conceivable function is a dynamic whole within the electric body, and imposes its own kind of energy upon the organs serving that function. "Chronaxie expresses all the functional properties of the tissue under consideration".¹

Different Speeds of
Nerve-Energy for
different Functions

¹ Bourguignon, *La chronaxie chez l'homme*, p. 404.

Moreover, all these different functional speeds are co-ordinated in the electro-structure as the corresponding organs are co-ordinated in the physical body. They are vertically as well as laterally connected. Each lower functional level is subordinated to the higher levels; each higher function exercises control over the lower ones, and all functions, (to us) a supremely important fact, are subordinated to the crowning one, which in the animal is the specific instinct, and in man the self-conscious will, and which can check or stimulate all the others, imposing its master-speed.

This is no speculation, no tale; the registering instruments have been made and perfected; their measurements have been checked over and over again, in the animal and in man, in health and in disease, and the variations in the normal chronaxies are found to be far subtler symptoms, and their measuring a much finer method, for diagnosing disease in its incipient stages, than any other known method.

Most significant to us is the research made into the relationship of consciousness with this organized vital electricity. For function is shown to obey the behests of consciousness. Let, for example, the chronaxie of the optic nerve and of the retina be measured in a subject. Then let a few drops of pure water be instilled into his eye. If he is told, and believes, that these are drops of a drug which reduces the visual power, under that persuasion the optic nerve will carry a slower-moving influx, and a quicker one if the persuasion be reversed.

Dr. Brosse of Paris has shown, with similar experiments, that the physiological functions are under the law of subordination to the self's consciousness, and that functional disturbances are amenable to psychological treatment. And in her work with yogis in India, she has proved that the self can achieve at the same time complete mastery over all functions and perfect physiological health.

I would suggest that this electro-structure, this highly organized electric body, now open to the investigation of western physiologists, is the etheric double or vital body of Indian and occult tradition. These few pages only touch the surface of the subject; but a much deeper study is possible, entering into the very constitution of the etheric double, its

All Functions are
subordinated
to Self-Conscious
Will

Variations in
Chronaxies and
Diagnosis of
Diseases

Functions obey the
Behests of Con-
sciousness

The Electro-Struc-
ture of the West
may be the Etheric
Double of the East

divisions and activities, which could carry conviction that both East and West, ancient and modern research, seership and scientific apparatus, are describing the same object.

If, for instance, we consider that the four great areas into which the muscular functions are divided, are divisions of one general motor energy, we might not be far from corroborating in that particular department of physiology, the fourfold division of Prāna into prānas, (Prāna itself being considered as the fifth). But modern Science has not come so near to Theosophy as yet.

The points of contact so far reached may be summed up as follows :

Points of Contact
between Theosophy
and Modern Science

- (1) There is an electro-structure lining up the physical body.
- (2) It is constitutionally electrical. We are therefore entitled to call it etheric.
- (3) It expresses the functional activity of the physical organs.
- (4) It is highly organized, and the details of its organization broadly reflect the organization of the prānas, dividing the structure into co-related areas, and subordinated functional levels.
- (5) This integration of functions culminates in the self-conscious will. It is therefore intermediary between the self and the body.
- (6) Being functional, it is admitted to be causal and regulating with regard to the physical body.
- (7) All nervous energy is electro-positive, and its higher aspect (in the cerebro-spinal system) is known to express the action of the self-conscious will. All somatic energy, (cellular and humoral), is electro-negative, and the tension of these two polarized electricities is sustained by the electric ions inbreathed with the atmospheric air.

Naturally, the frame of theosophic thought within which ancient seers located the Prānic Body, is not the *background* against which western biologists see and interpret the electro-structure they have discovered. The only background of the western scientist so far is the physical plane and evolution on the physical plane.

The Need of Co-
operation between
Physiologists,
Psychologists
and Theosophists

But it would mark an important advance in scientific thought if the relations of the etheric and of the physical were correctly understood, and much could be done in that direction if psychologists and physiologists would join in their efforts, and if theosophists would co-operate with them in synthesizing their findings.

MYTHOLOGY

BY EDITH F. PINCHIN

THE science of Mythology is defined in *The Encyclopædia Britannica* as "the science which examines myths or legends of Cosmogony and of gods and heroes"; and it is recognized by all schools of mythology that those myths relate to the early religious experience of mankind, and that moreover they are "an attempt to explain physical as well as religious phenomena", that they "throw light on material, method and progress of primitive science"¹ as well as religion.

When *The Secret Doctrine* (that classic of Theosophy) was first published in 1888, the writer found it necessary to remind the scientists of that day that the true meaning of myth was *tradition*, "synonymous with something told, as having happened in pre-historic times, and not necessarily an invention"²—a product of the so-called "primitive imagination". Today it is generally agreed that "myth belongs to the Science of Tradition (Lat: something that is handed down)"³.

What is this "something that has been handed down"? Theosophy affirms that it is nothing less than the truths of the great Eternal Plane of Life taught to every Race of Humanity by the Great Teachers of the Races—the Elder Brothers—who Themselves *know* those truths as scientific facts, but who present them to each Race in symbolic form exactly suited to the understanding of that Race; the activities of the Divine Life at every level and in every aspect being expressed in terms of human relationship among the Gods and between the Gods and other Beings.

¹ Lewis Spence, *Introduction to Mythology*, pp. 11, 20.

² S. D., III, 33 (Adyar Edition, V, 53).

³ *The Encyclopædia Britannica*.

The Mystery
Schools

Very few members of a Race understood *scientifically* anything of the Mythology of that Race, but the flower of each Race, the Spiritual Giants, most certainly did. The Mystery Schools existed for that purpose, and we cannot completely understand mythology unless we take into account these Schools and their teaching, for the students in them learnt of the scientific truths and *knew* them in varying degree. As one modern mythologist states, "no treatment of the myth of Osiris can ever prove really successful, unless it takes into account, first of all, certain facts of astronomy known to those ancient Egyptians, and secondly, the fact that the god had not only his myth but his mysteries".¹

Symbology

But for the rest of the members of the Races the truths were enshrined in symbolic form; hence the legends that were handed down and accepted—the outer form often crude and perhaps distorted during the process, but the inner meaning exact and scientific. The tremendous strides made today in scientific knowledge, are exotericizing some of those facts of pre-history which before had perforce to be esoteric to the few who could understand. Symbology—and Mythology is one form of Symbology—exists to preserve and keep intact that part of the One Truth that cannot be perceived as objective fact.

The great myths found in all mythologies and religions—myths of the Creation, of a Golden Age under Divine guidance, (a Garden of Eden), of a Tree (or fruit) of Knowledge of Good and Evil, legends of catastrophes and cataclysms—these and many more are but symbolic expressions particular to a Race (and therefore varying in detail according to the Race concerned) of scientific Truth.

Before—and in order that—all these particularized forms could be, there was and is eternally the Great Universal Truth Itself in all Its Majesty, the common Source and Origin of all the lesser expressions of Itself and far greater than any one of them.

Truth not under-
stood is veiled in
Symbols

The Truth is *One*; before all manifestation is the Oneness, the Wholeness, and that Oneness *is present in manifestation all the time* and therefore cannot be expressed (or taught) except in its Wholeness; but that part which cannot be understood objectively is presented under symbol. As science develops, the symbolic coverings of old tradition slip away; we have scientific demonstrable fact in place of tradition, but that very mastery

¹ H. P. Cooke, M.A., *Osiris: a Study in Myths, Mysteries and Religions* (1931).

of one more realm of knowledge enables us to reach towards still higher knowledge, which itself is veiled in symbol till in its turn it shall be objectively proved by man himself. And always the form and nature of the symbols themselves change to meet the needs of the evolving life.

Modern scientific research in realms of mythology and symbology state this truth :

Reality is too large a thing for the human mind to apprehend in its completeness and all the more ultimate conceptions of it must be relative and in a measure symbolic. This has now become apparent even in the case of the most precise of all sciences, that of astro-physics where . . . we seem to reach an order of reality that is only knowable symbolically. . . .

It is therefore hardly surprising if unsophisticated attempts to evaluate life and environment in response to emotional stimulus and cultural contact should find adequate expression in fantasy forms to be understood not so much by reason as symbolically by feeling. Nor yet has science or philosophy or theology solved the riddle of the Universe, and until this is accomplished . . . all mental attitudes and adaptations towards reality must contain a symbolic element, though admittedly in decreasing rate to the formation of valid intellectual interpretation.¹

This magnificent scientific view of symbolism and the continuity of its several forms, from the god-human symbolism of early mythologies to the mathematical symbolism of astro-physics, is a far removed cry from that view of last century of which the writer of *The Secret Doctrine* complained when she said that religious and scientific symbols were "made to mean anything the symbolologist wanted them to mean".

We shall deal later with the "symbolic feeling", as differing from Symbolism deliberately Chosen the abstract and synthetic reasoning which stamps the symbolism of modern astro-physics, but we would add here that Theosophy would challenge only one inference in the above lengthy quotation, namely, that the earlier symbolism was the outcome of "unsophisticated attempts to evaluate life and environment". Theosophy states that the symbolism itself was deliberately chosen by Those who knew the facts of the riddle of the Universe, and that the unsophisticated element in the myths is due solely to the fact that *they were presented to unsophisticated mankind for their helping in accordance with "the emotional stimulus and cultural contact" which would inevitably be their experience.*

¹ The Rev. Dr. E. O. James in his Presidential Address to the Folk-Lore Society (London), February 1932. *Folk-lore*, XLIII, p. 19.

The myths of primordial Chaos in which stirred Titanic Forces, and from the activities of which emerged the Universe, are symbolic pictures of the Science of the Eternal Beginning. Theosophy affirms that Life in its primeval Unity and Divinity stirring in No-thing-ness gives birth to the eternal Duality—Spirit-Matter—and then involves itself in orderly fashion deeper and deeper into the multitudinous interactions and interpenetrations resulting from that Duality, that it may then *e-volve* eternally in equally orderly fashion, again knowing the Divine One-ness but having thereby achieved a Unity self-conscious *in its every part*. All manifestations of Life, non-human, human and superhuman—all forms from the simplest to the most complex—are part of that Plan eternally in process of continual unfoldment.

The mythologies pictured these interactions of Life in the figures of the first primordial Gods, whose reflection of themselves in their children, whose links with each other and with lesser gods, whose voluntary or enforced limitation, imprisonment and loss of power symbolize that descent or “drawing down” of Life—of Divinity—into denser and denser matter, the commencement of a cycle which shall be completed when those to whom the Gods descend shall themselves hold communion with the inhabitants of the Divine Height—Meru, Olympus, Asgard or the Mount under any form.

These struggles and relationships of the Gods are repeated under similar circumstances but in smaller cycles with lesser gods, with the demi-gods and with the heroes of Mythology, for the Plan is a Plan for all manifestations of Life at all levels. As in the macrocosm, so is it in the microcosm, and the old mythologies express this in their symbolic figures moving in large or small cycles.

Involution, as far as *Humanity's appearance in this world is concerned*, is of the long, long Past—a prehistoric past, if we think of time in the usual sense. Mankind is concerned with Evolution, but the scientific fact that evolution must be preceded by an involution is recorded in the symbolism of all mythologies and religions as the Teachers taught them. Many of what have been called “senseless and irrational” myths are, in one of their aspects, symbols of this earlier involutionary arc of the Cycle of Life; they are “senseless” to us only because our knowledge

Continual Unfold-
ment of Life

The Descent of
Life

The so-called
“Senseless and
Irrational.” Myths
are also Symbols

of Science is not yet sufficient to enable us to prove the truth within the symbol.¹

The evolutionary arc itself, however, has a long history and pre-history as Theosophy teaches, and this also is recorded in every mythology *up to the stage reached in the Race to which the mythology belongs*. The evolution of pre-human forms and of the early Races of mankind which cannot be measured by the qualities of humanity today, form the source (or rather one of the sources) of the older myths and traditional legends of animal-gods. We shall return to this point later in more detail, but we would here mention that all these myths justify the statement of Theosophy that "Mythology is Ancient History",² and that

Events which were never written outside the human memory, but which were religiously transmitted from one generation to another, and from race to race, may have been preserved by constant transmission . . . and through countless aeons, with more truth and accuracy than inside any written document.³

All mythologies were so transmitted. The science of reading these myths aright is the real aim of mythologists, and modern mythological science says :

With the material now to our hand it is important that we fully employ every possible rational method of interpretation. The folly of adopting one key to open all mythological doors has been illustrated by the fate of such systems as attempted to interpret the nature of the Gods by theories of a "disease of language" . . . Let no method, linguistic, solar, anthropological, dominate our conclusions but let none be absent from our counsels.⁴

This is in keeping with the theosophical view as expressed in *The Secret Doctrine* :

. . . in order to be dealt with, with at least an approximate degree of justice, the so-called "myths" have to be closely examined from all their aspects. In truth, *every one* of the seven keys has to be used in its right place, and never mixed with the others—if we would unveil the entire cycle of Mysteries.

¹ Such as the myths of the emasculation of Ouranos by Kronos and of Kronos swallowing his children. These have, however, an eternal dynamic symbolism and refer to the same activity taking place in many cycles in all time.

² S.D., II, 796 (Adyar Edition, IV, 323).

³ S.D., II, 442 (Adyar Edition, III, 422).

⁴ Lewis Spence, *Introduction to Mythology*, p. 115.

⁵ S.D., II, 544 (Adyar Edition, IV, 86).

That same authority states, however, that "that day when all the seven keys shall be delivered unto Science, or rather the men of learning and research in the department of symbology, has not yet dawned".¹ Nevertheless, study leads us to postulate the following :

Seven Keys to
unlock the
Mysteries

- (1) The Spiritual Key.
- (2) The Theogonic Key (Cosmogony).
- (3) The Astrological and Astronomical Key.
- (4) The Psychic Key.
- (5) The Geometric Key.
- (6) The Anthropological Key (including Physiology and Psychology).
- (7) The Magical Key.

Two of these keys, at least, have an inner expression : "Astronomy and Physiology" are two keys as "studied by the eye of sensual perception" ; their "informing souls, which must be studied by the inner eye", are Astrology and Psychology respectively—according to *The Secret Doctrine*. Of the others, the value of the Theogonic Key is easily recognized since the qualities of the similar Gods in different mythologies are yet never *identical*, thus obviously providing a clue to some difference in expression of the One Great Wisdom. The Magical Key is connected with symbols, signs, rites, ceremonies, words of power, *i.e.*, of creative force ; it is the Spiritual brought down and expressed. The Psychic Key is perhaps the least understood ; colour or the chromatic quality is one of its sub-aspects and it is concerned with surfaces rather than lines when any structure is referred to. The Geometric Key needs little introduction perhaps, but we by no means understand its full significance.

We need not wonder at the *sevenfold* unlocking postulated by Theosophy. Physical and mathematical sciences prove every year, by scientific laboratory methods, the existence of the sevenfold quality in the Universe. The sevenfold cycle in colour, sound and so forth, we have known for some time. Modern psychology today recognizes the sevenfold faculties of Man which Theosophy has always taught, though it gives different names to express the same recognized and tested qualities.²

Sevenfold Expressions Everywhere

¹ S.D., I, 343 (Adyar Edition, II, 35).

² It is the "School of Psychology of Levels" which recognizes and uses the sevenfold faculties of man : Will, Intuition, Synthetic Mind or Social Sense, Analytical Mind, Emotion, Activity, Perception. Through all these Man expresses himself. Theosophy, using Sanskrit terms, calls these same faculties, or qualities, Atma, Buddhi, Higher Manas, Lower Manas, Astral, Etheric, Physical,

With the oldest Teachers Theosophy has always affirmed that "God geometrizes"; the activities of the all-embracing, all-ensouling Life manifesting as the eternal Duality produces therein other combinations and permutations—and the sevenfold nature is present everywhere. The sevenfold expression of the Creative Hosts recognized in all myths (the Seven Rishis, the Seven Spirits before the Throne, etc.) is reflected in Man and the Races of Man, because Races are groups of individual men with evolving Consciousness; the Race does *not impose its culture on man* as the sociologists have stated; man "made in the image of God" expresses himself in relation with other men, and because a certain number of men have *individually* reached a certain stage of evolution (level of consciousness), therefore they are collectively a Race.

The first Leaders and Teachers of any Race sound a note: They accentuate perfectly one note of the sevenfold Harmony. Round Them are gathered men who are *inspired* by Them to reach upwards to this more perfect understanding, each of himself and of the Divinity within him. To a greater or lesser extent these men attain this knowledge and live it; these in their turn inspire others who are in contact with themselves, and ultimately the culture of the whole Race is established.

Cultural Level,
Index of Races

That level of culture is then passed on to succeeding generations and is, therefore, apparently "imposed" on the Race. Yet, we see that individual men of the later generations will not accept that culture if they are not ready for it; certainly such men are then sub-normal to the general level, but there are also others again who are super-normal, having attained a yet higher and more inclusive culture. The mass of any Race is at a level of culture between the highest and lowest members of the Race, but we must not therefore mistakenly think that the general culture we find at any given time is imposed on the Race. There is no imposition in the Divine Law or Plan; there is only the possibility for individual men (since they are potentially divine) of an ever-increasing and deepening response to an ever-present Spiritual Inspiration. Inspiration and not imposition is the law of growth. Within a Race individual men may continue to be inspired "beyond" the general level and will thus tend to raise the level of culture, or perhaps to form the nucleus of a new Race that shall one day gather round another Teacher accentuating yet another note of the Seven.

The seven qualities which Psychology has recognized in individual man are expressed on a larger scale in the Races of mankind. Scientists in the various schools of Mythology, as elsewhere, are discovering these expressions, but scientific proof as we know it today can only be given of a certain number of them, for some of the Races have entirely disappeared and others have yet to come.

We give here the Table of Races as postulated by Theosophy with the quality of the expression of Consciousness in each, realizing that the Whole Life (or Consciousness) is present in all, but especially expressing through one quality. It must also be remembered that these are the great Root- or Mother-Races of Mankind (of which there will ultimately be seven) each of which is sub-divided into sub-races and these again into nations.

FIRST ROOT-RACE

(or POLARIAN)

SECOND ROOT-RACE

(or HYPERBOREAN)

Both of these are pre-historic. Modern science does not give them attention. No geological remains are found. Hindu traditions refer to the physical forms as Shadows breathed out by Divine Spirits (First), and the Second as exuded like perspiration from the First, as lowly plant forms are exuded now. They are never referred to in the myths as having stable forms.

THIRD ROOT-RACE

(or LEMURIAN)

Quality—Emotion: the Affective, Pre-logical state as some Psychologists express it.

Last remnants of this Race are the aborigines of Australia, the Pacific Ocean and Central Africa, but these are degenerate. The legends of these people give hints of the original splendour of the Race.

FOURTH ROOT-RACE

(or ATLANTIAN)

Quality—Analytical Mind.

The North-American Indians are descendants of the third sub-race; and the Mongolians of China and Japan are descendants of the seventh sub-race of this Root-Race.

FIFTH ROOT-RACE	1st sub-race Indian.
(or ARYAN)	2nd sub-race Egyptian.
Quality—Synthetic Mind or	3rd sub-race Chaldean (Iranian).
Social Sense.	4th sub-race Mediterranean (Celtic).
	5th sub-race Nordic (Teutonic).
	6th sub-race now appearing.
	7th sub-race future.

(All sub-races express the dominant Root-Race quality focussed in its own particularized quality, *e.g.*, the North American Indians show insistence on the *emotional aspects* of the *mind*, for they are of the third sub-race and the quality of the third is Emotion, although the Root-Race is Fourth and therefore mental in quality.)

The more detailed explanation of these Race qualities can be studied in *The Evolution of Man* and *The Next Step in Evolution* by J. E. Marcault and I. A. Hawliczek. Myths of these Races often allude to previous Races or sub-races under the name of Cities, thus in the Epic of Gilgamesh, Erech was said to be the second city, in this case referring to a sub-race, and the Tuatha de Danaan of Gaelic mythology are said to have sojourned in four cities previously, from each of which they brought a treasure. The Gaels being members of the Fifth Root-Race would have the fruits of the experience of the four previous Races.

The period of the Third Root-Race, according to Theosophy, marks the point where Man ceased to be innocently pure, *i.e.* dependent on Divine Guidance as depicted in the myths of the Golden Age and the Garden of Eden. By the close of that Race he had assumed a form more nearly approaching our own in function, which was the outward expression of the spiritual fact that it then indeed became "man's tragic and glorious destiny to combine heaven and earth in his own being", as one psychologist¹ so beautifully expresses it.

Hence all myths later than that period—and we have no complete mythology before that of the Fourth Root-Race—*give human relationships between superhuman Gods and Forces as the mode* of explaining the mysteries of the Universe.

¹ Dr. H. G. Baynes.

Modern mythologists are working in this direction when they seek through the understanding of "the whole science in the sense of the whole history of man",¹ (using *all* lines of approach) to read the riddle of the Universe. Chinese Wisdom states that there are three elements, Heaven, Earth and Man. Theosophy speaks of Cosmic, Planetary and Solar aspects, meaning the same thing, and all the elements are expressed in mythology in terms of human relationship. Since man combines heaven and earth, it is natural that mythological study should use that key. There is an interesting side-light here; Theosophy urges that other keys will one day have to be used to completely unlock the mysteries of mythology; one at least of these keys, though known to the general scientific world, is not yet acknowledged as such. The astrological and astronomical aspect in mythology is generally discredited and usually in strong terms; is it not due to the fact that Astrology, *in its relationship with the human element* in the Triplicity mentioned above, has suffered misuse and false presentation to suit the phenomena-mongering sensational desires of its pseudo-votaries? When it is rehabilitated scientifically in its proper place, it will solve many of the aspects of mythology which remain a puzzle. In its pristine purity it was "a most profound research into cosmogony and celestial correspondence, uniting the evolution of man with the universe of which he is part".² There have always been scientists who used the astrological-astronomical key, but they have generally been criticized for "marring their erudition with speculative extravagances".³ The book before mentioned dealing with Osiris has been criticized on the point that to give the story an astronomical background is "a revolutionary procedure", and "runs counter to the generally accepted canons of interpretation".

Details of modern scientific excavation and research in connection with the existence and age of those earlier Races and their "lost" continents, will be dealt with in other parts of this Series where Archæology, Geology and Anthropology are specially considered. It would be unnecessary repetition to give them here, but Mythology being the science "relating to the early religious and scientific experiences of mankind", must of necessity till the same fields, since the old mythologies contained *in symbolic form* the facts

¹ Dr. Marrett, *Anthropology* (Home University Library).

² J. Emile Marcault and Iwan Hawliczek, *The Next Step in Evolution* (1932), p. 32.

³ *The Encyclopædia Britannica*, article on the French astronomer Bailly.

and knowledge of all the other sciences *before they were known* AS science. Hence all the excavations in Egypt, Assyria, Crete, China and elsewhere prove the facts that were represented in symbol in the myths of those civilizations.

In this monograph we shall rather consider how the modern schools of Mythology are endeavouring to understand the "mode of thought" in which those myths were expressed, as their research gives them more and more material.

There are three main schools of Mythological Research today:

1. The *Anthropological School* which grew out of and away from the Philological School of Max Müller.
2. The *Psycho-analytical School* following Jung.
3. The *Sociological School* following Durkheim and Lévy-Brühl.

The first School obviously uses mainly the anthropological key, but based on archæological finds, and deduces certain theories from observation of objects pertaining to past civilizations. It naturally finds evidences of magic, astronomy, theogony, but since it bases all its work on concrete objects, *i.e.*, studying "by the eye of sensual perception", its conclusions are always related to the physiological nature and needs of man rather than to the psychological side. Geometry in its numeral measure aspect is also used.

Both the Psycho-analytical and Sociological Schools endeavour to make use of the inner aspect of the anthropological key, that is, psychology—their theories resting on the basis that myths refer to psychological experiences. They also meet with other keys as they use their own particular keys; and individual members of the Schools are ready to admit them; as, for instance, the author of *Osiris* who, as before mentioned, is prepared to be "revolutionary" in his admittance of the necessity of an astronomical key to understand the whole meaning of the Osiris myth. He also realizes that the God had his mysteries which need a spiritual key with its manifested synthesis down here in the magical key.

The Sociological School also uses the psychological key making researches in living remnants of older civilizations. Its members also admit other keys, translating them however by means of their own particular key.

The Psychological Key It is natural that the psychological key should be dominant—and working as it is with its fellow, the physio-anthropological key—since psychology is a rapidly developing science, and is more and more concerned with *individual* evolution and man as a "stream of consciousness". Since man is the link between heaven and earth, it is fitting that the main key in use at the moment should be concerned with him, and that in the use of that key other keys are recognized.

The Golden Bough The works of Tylor, Mannhardt and Sir James Frazer are prominent features in the Anthropological School, although there are many other names as well. The magnificent repository of fact that Frazer brought together in *The Golden Bough*, is a mine of information for mythologists of all schools. (It is generally recognized that in this book he has given an overwhelming value to the vegetative root of all myth—relating all myths to seasonal and vegetation phenomena alone, just as other mythologists have given undue weight to other readings of myth. No mythologist, however, hesitates to recognize the debt owed to Sir James Frazer for this great piece of collected documentation alone.)

The later exponents of this School, however, "have broken away from the Tylorian tradition of picking up fragments here, there and everywhere and joining them into a plausible but arbitrary mosaic". They work on a structure or plan based on myth-and-ritual-patterns which they find common to all mythologies. They admit that "parts of the plan are still in shadow".¹

A book published in 1933 entitled *Myth and Ritual*, which is really a collection of essays by accredited scholars of deep erudition, and edited by Professor Hooke, gives the new outlook extremely well. It was followed in 1935 by another book of similar studies entitled *The Labyrinth*.

Three Cultural Circles This type of research work using archæological and anthropological excavations as providing an historical approach to Mythology, and combining it with the study of existing primitive Races, has led the authors to postulate three concentric circles of mythological and ritual interest: The Inner Circle comprises Egypt, Crete, Mesopotamia with the Indus valley "just beginning to emerge from the shadow". The Second Circle comprises the

¹ These details as put forward here are gathered from the Presidential Address of Professor S. H. Hooke to the Folk-Lore Society, February 1936, *Folklore*, XLVII, pp. 11-29.

Hellenic civilizations, Celtic and Teutonic cultures, the Persian and Byzantine civilizations, "thence eastward into the area of the civilizations of India, China and Japan". (Professor Hooke admits that the three latter civilization centres "are still only imperfectly illuminated by the results of archæological and anthropological study"; it may be that with further study and illumination these will find their proper Circle [or cycle] which is not that of the Hellenes, according to Theosophy.)

The Third Circle comprises the existing primitive cultures of Australia, Polynesia, the African tribes, the North American Indians, the Esquimos and the Siberian tribes.

This work is still only in its first stages, but Professor Hooke feels that "it only awaits a greater co-operation between archæologists, anthropologists and historians", and "the application of functional, psychological and sociological methods", to produce a fruitful synthesis. Their efforts up to the present have led them to the conclusion that the Inner Circle of their plan is extremely important; some of them think it is the source of all the mythic and ritual patterns, realizing at the same time "that movements out of the North African cradle-land were several", and that differences in detail which are now noticeable are due to the varying "cultural conditions of the different waves" (or movements taking place through long periods of time), also to the waves starting from different regions, and lastly to the beliefs of the homeland itself changing during the time between the successive waves. This is an extremely interesting theory, since it equates with the theosophical teaching of the importance of the North African cradle-land as the link between the Aryan (Fifth) Root-Race and the knowledge existing in previous Races (Atlantean and Lemurian); therefore in one sense a source of our present religious and scientific belief. There is a still greater Source according to Theosophy, and when scientists gain still more illumination on the importance of Asia they may be able to tell us more. For the present, they state that "during the last ten years" the evidences have "re-habilitated the doctrine of *Ex Oriente Lux*".¹

There is a further interest in this theory, and also in that of Layard that "there is evidence from a wider field to show that successive elements of belief not necessarily originating in a common centre have spread

¹ From a paper "The Origin and Belief in Fairies" read to the Folk-Lore Society, by R. U. Sayce, *Folklore*, XLV, p. 141.

In connection with this matter, read *The Progress of Man*, Hocart (1933). It gives the views of the Tylorian and Anthropological Schools.

in a series of waves over a large portion of the globe" with "local amalgamations each laying varying stress on the individual component elements".

The influence of the general scientific awakening to the questions of Dynamism and Relativity is reflected in the schools of Mythology as well; and they are giving demonstrable proof of a central core of myth and religious ritual continuous through all civilizations, but with a relative importance and expression of certain elements individual to each civilization.

The "continuity aspect" is developing along interesting and unsuspected lines; for instance, observation of existing "savage" races has shown the making and use of a certain sacred drum for ritual use. But archæological research in Mesopotamia has revealed that this drum had a more glorious earlier expression in the sacred "Lilissu drum", of which the very words of the spell used in consecrating it have been unearthed, as well as the magical use of it on occasions such as an eclipse, thus establishing the fact that existing "savage" race rituals have a relationship with older race mythologies, and that the tradition of the former "presupposes some kind of continuity with the past", it being "impossible to eliminate the time aspect anywhere".¹ Surely, also, that relationship suggests a gradual degeneracy from the more glorious civilization since the existing tribes have "lost" much of the knowledge connected with their drum; the present "primitive" tribes are but remnants of a finer people with only remnants of a finer expression of belief; they do *not* demonstrate the *early stages of religious belief*, but the *end of a type of religious expression* that has almost finished to serve the purpose for which it was instituted.

Sacred Drum and
its Mystical Use

It is obvious that the psychological and anthropological mythologists are co-operating in this type of research work, and indeed of the eight essays which are included in *The Labyrinth*, four are written from the anthropological point of view and four from the psychological point of view (both the Psycho-analytical and the Sociological Schools being represented); the first four are concerned with the origin and diffusion of cultural patterns of myth, and the second with the quest for the source of religious ideas.

The Psycho-analytical School, following Jung, studies these basic myth-patterns from the angle of the psychical structure of man, and speaks

¹ Professor Hooke; *vide supra*, p. 45 (this article).

of the mythic figures as archetypes or primordial images, realizing that they are related to an "urge" not objective or "conscious" to man—not analysable or discernible by his five senses—but nevertheless "spontaneous" natural products of man's psyche. The danger to be avoided in this

Sub-Conscious and
Super-Conscious

School is that its members too often identify the symbols from the *sub-conscious* with those from the *super-conscious*; both are *unconscious*—the sub-conscious because its contents have been repressed into darkness, the super-conscious because its Light being yet unknown is for us darkness, but the quality of their respective symbols is therefore very different.

The Sociological School, with its leaders Durkheim and Lévy-Brühl, began its research also from collected data—unequal in value—of travellers, missionaries, empire-builders and anthropological research workers studying existing "primitive" races.

Its chief contribution—and a very valuable one—is that it has defined the "mode of thought" of the primitive races. Professor Lévy-Brühl in his two books, *Les Fonctions Mentales dans les Sociétés Inférieures* (1910) and *Primitive Mentality* (1923), gives the results of his scientific and detailed study of the reactions of these people to existing conditions and of their folklore and traditions; he shows that they approach life from an affective, pre-logical (*i.e.* emotional) level of consciousness. This great psychologist insists that we must not "define the activity of primitives as a rudimentary form of our own and consider it childish and almost pathological. On the contrary . . . it is both complex and developed in its own way".¹ It is not oriented to cognition; its collective representations are always largely emotional. "Space is felt by them . . . Time remains vague and absorbed in the present".¹ Their traditional and mythic lore are stamped with the same qualities; they "feel" their Gods as powers, as different combinations of the life-essence which is always "magically" in contact with them, and which they must not offend, hence "taboos". Having no sense of analysis of time, and therefore no understanding of causation as we know it, their tradition is full of negative rules to protect them, as the theosophist thinks, from misuse of powers still subjective to them; their quality of "feeling" so vitally the other world conditions (which include the powers or "Gods" as well as lesser aspects) is channelled for their helping in their tradition and myth.

Feeling, the chief
Quality of the Primitive Races

¹ Lévy Brühl, *Primitive Mentality*.

Therefore all that is objective and "concrete" is the vital and emotional quality; and it is because we view them from our conceptual mode of thought that we find so uncertain the comprehension of institutions wherein is expressed the mentality, mystic rather than logical, of primitive people.¹

This view can well be compared with that of Theosophy that they are survivors of an older Race (the Lemurian) whose particular expression of and relation to Life is emotional. One must remember, in following this Sociological School, that there is often an insistence on a social consciousness of a race or tribe independent of the individual members of the tribe, which is not in accord with the theosophical view as stated before (see pp. 39-40).

It is well to note here that Sir Granville Elliot Smith encountered tribes of these same primitive people, who have "no hierarchy of power" in their own tribes "because social organization has not become a problem". Each member of the tribe lives individually in simple accordance with Nature's laws; they have no collective rites of tribal initiation—"a boy is advised to seek for his individual 'tinihowi' but it is a solitary experience", and he must never speak of it to anyone. The existence of these "pre-social" or "pre-group" tribes surely points to the fact that it is the individual man who is of the first importance and not the "collective consciousness" of a group.

When all the schools of Mythological Research combine together, as they are doing in their work, we find more interesting approaches to Theosophy.

One very interesting line of research that has been occupying them during the last few years is that of Divine Kingship. In one of the books of essays already mentioned, Professor Hocart of the Anthropological School writes:

The earliest known religion is a belief in the divinity of kings. I do not say that it is necessarily the most primitive, but in the earliest records known, man appears to us worshipping gods and their earthly representatives, namely kings. . . . Perhaps there never were any gods without kings or kings without gods. When we have discovered the origin of divine kingship we shall know, but at present we only know that when history begins there are kings, the representatives of gods.

¹ *ibid.* Professor Marcail has stated this inability to understand these people in the following words: "We the Fifth (or Social Sense) Race judge from the Higher Mind, hence we have a monotheistic idea from our synthetic conception of God, the Father of All. Hence we do not understand older mythologies with many Gods."

Anthropologists have therefore endeavoured to trace the myth-ritual-pattern of kingship through all civilizations; the common elements in all mythologies were the death and resurrection of the God, or his earthly representative, the King, whose magical attributes, they state, were carried over to the Messiah, and are therefore repeated in Jewish and Christian Apocalyptic. The ritual based on these mythic presentations was of the nature of a sacred communion, which was enacted in a temple of some kind, this temple being therefore a representation of the mountain, tree or grave where the dead God was imprisoned. Following their structural plan of the three concentric circles of mythological growth, they see its origin in Babylonia and Egypt, and its recurrence as transmission from one area to another as a cultural necessity.

The Psychological Schools approach the same question from a different angle, maintaining that archæological research will not find the origin of divine kingship, for

Divinity is not a concrete object to be discovered. Originally it is always a psychological experience, the meaning of which could be recaptured only by the intuitive faculty. . . .¹

Referring to the struggles between the King or God and the opposing forces (often represented in bestial or else titanic form) which are always the central factor in the myths, Dr. H. G. Baynes emphasizes the fact that the Titans are "personifications of elemental powers", dynamic and overwhelming in character, and because they could produce "an overwhelming effect either for man's good or for his destruction", they were conceived of as "divine or dæmonic". He equates them in the human psyche with the dæmonic forces of man's primitive unconscious, whose power chiefly lurks in those overwhelming psychic tendencies we call animal instincts, and he says that such a symbol as a Divine King "arose from an early need of man to create a divine symbol", the discovery by him that in myth-ritual, by "raising the idea of communion—the human pact—to the highest possible value, these forces which held for man the greatest danger were transformed into the safeguarding power of divinity. . . . Thus the King is the symbolical representative of the ruling principle . . . which cannot be overthrown by dæmonic influences from

King—symbolic
Representative of
the Ruling Principle

¹ From a lecture delivered by Dr. H. G. Baynes to the Folk-lore Society in 1935, *Folklore*, XLVII, pp. 74-104.

the shadow world of the unconscious" (*i.e.*, sub-conscious). From the psychic standpoint, this is in many ways a very fine reading of such myths, but the confusion of sub-conscious with super-conscious within the common term "unconscious" leads him to state that the symbol "had *its origin in man's greatest peril*", and that man *created* it as a safeguard. How that "divine symbol of highest possible value" could have been created "from below", by man "in the grip of dæmonic powers of the primitive unconscious", is difficult to see if only from the fact that creation can take place only in freedom. As a symbol it must ever have been of the nature of the *Super-conscious*, presented through the medium of man's own super-conscious by Those who live freely at that level—the Supermen. Man may indeed *have become first aware of the reality it held for him* in the time of his greatest need, but its origin must be sought at a greater Source.

The *Spiritual* is the source, the mode and the goal of all mythic representation as Theosophy teaches, and it includes all other approaches.

Man is himself essentially a spiritual being with a *total potentiality of Spirituality* far exceeding any expression of it that he has yet attained; he reaches a self-realization of (and objectifies) more and more of this spirituality, but only because it is there from the beginning in its wholeness, to *be realized*. Man *does* educate himself spiritually but only within the consciousness of Others who have already attained greater self-realization. Those Others are the Spiritual Teachers; They present the symbols, and man realizes the divine nature of them within his own potential or subjective divinity. Divinity or spiritual Life is universal and whole—where it realizes itself, it is free and can create; where it is aspiring to that self-realization it recognizes the truth of the creations which are presented to it.

Certainly as greater realization of the spiritual nature is attained in one Race (is the result of attainment by *individual man*, be it remembered) it may be, and is, transmitted to other civilizations in so far as they are capable of the same realization; hence the recurrence of myth-patterns and the possibility of tracing them to one source, even cultural, historical or geographical; but that is only part of the completeness which is concerned with the whole science and history of man. So also is the psychic need, another part of the Whole.

A spiritual experience must have a spiritual source—the cultural and psychic source is part of that certainly, but *the wholeness of spiritual man* cannot grow within a partial environment, nor be traced to a partial source. The *spiritual* is the *whole* science and history of Man, and is therefore that of his relationship with the other two elements of Heaven and Earth linked in him, also. In its all-inclusiveness alone can all the keys be found to unlock the truths in mythology.

The Mythological Schools studying their myth-ritual-patterns will surely find that the significance of the recurrence of patterns leads but to the original Source, Whole and Complete, from which Truth and its varying expressions can be put forth again and again; such expressions ever being repeated first in symbol with an esoteric meaning for the few who understand, and at a later period in exoteric form when all men understand. Then indeed will they “trace tradition back to a higher, better, more supernatural reality of initial events”.¹

The Circles (or cycles) of development of myth that the Anthropological School perceive as related to each other, will be shown (as they approach them more and more from the dynamic psychological angle) to be spiral in their relation to each other, that is, the repetitions commence and close in one cycle at a different though overlapping level of consciousness or understanding. There is indeed a temporal as well as spatial approach, and both are co-existing expressions of the one evolving Life in Man and the other two planes between which he is the link.

Dr. Marrett draws near to this when he says:

Finally there is to be observed that subtle process. . . whereby primitive rites designed to help bare living are gradually transformed into educational instruments for increasing our power of living well.

The Mythological Schools of today are following newer and finer methods of interpretation, and their rapid progress towards unveiling still more scientific truths from their symbolic coverings is bringing Theosophy and their Science immeasurably closer. The Anthropological Schools are corroborating by their scientific studies of the myth-ritual pattern with its basic features of the death and resurrection

¹ Malinowski, *Myth in Primitive Psychology*.

of a King-God, showing that there are "fundamental doctrines common to all but differing in details and in the relative stress laid on each",¹ which Theosophy has always stated. Further, their conclusions as to the centres and cycles of growth of these common myth-patterns accompanied by appropriate mysteries, support Theosophy in declaring that these basic truths "are constantly reinforced at the dawn of each successive civilization, from Oannes to Muhammad",¹ by Divine Rulers and Teachers. And the importance they are led to give to the Egyptian, Cretan, North African area as the source of all mythic and ritual patterns is, as we have stated, in growing agreement with the theosophical acknowledgment of the North-African cradle-land as a link between Aryan and previous Races, and therefore the source of myths as we study them today.

The Psycho-analytical School with their study of the "unconscious" mind of man as revealed in his myths, and his need for symbols of inspiration to bring order out of chaos in his psychic life, support a truth that Theosophy stated long ago and as to which it still holds the key with regard to the super-conscious and the sub-conscious nature of man.

The Sociological School also concerned with the "unconscious" man has succeeded in corroborating Theosophy in the statement that certain "primitive" races were emotional in their approach to life. The Races which they study, Theosophy considers as remnants of the Lemurian or Third Root-Race (or in some cases of the third sub-race of the Fourth Root-Race) whose characteristic expression was through the emotions—man's third principle—that is, the affective or prelogical quality mentioned by Lévy-Brühl. The scientific conclusions of this School as to the specialized qualities of the culture of the Races support the theosophical statement of their place in the Plan.

The Schools are aware of the possible dangers of their various methods: the Anthropologists of the danger that while specializing on one branch of research they may not realize what advances are being made in another branch, and "what bearing such advances may have on their own studies"; and the Psychologists of the danger "that we may assume that the living psyche can be exhaustively explained by an inventory of the instinctive drives, and that the primordial spiritual principles are *nothing but* a secondary sublimation of biological necessity".²

¹ *The Universal Textbook of Religion and Morals*, edited by Annie Besant.

² Dr. H. G. Baynes in *Folklore*, XLVI, p. 387.

The possible
Dangers of
Methods in
various Schools

All are keenly alive to "that tendency which mankind would seem quite incapable of getting rid, to confuse the spirit with the letter ; just as anyone with the soul of a draper may see in a nation's flag no more than a piece of bunting".¹

The "draper's soul" has to be avoided by all mythologists even when it appears in an anthropological, psycho-analytical, sociological—or theosophical—disguise!

APPENDIX

Let us take the story of the Bridge Bifröst in Norse Mythology and endeavour to use some of these keys.

The Story in Norse Mythology Bifröst was the rainbow-coloured Bridge built by the Gods to unite Asgard, their home, with Midgard, the dwelling-place of mankind, and also with the hall where the dead were judged and where the Gods sat in council. The southern span of the Bridge reached the Well of Mimir, the waters of memory and wisdom, close to two of the three roots of the World Ash Tree of Life, and to the quiet underworld of Hela where the "souls of good men abide". According to some accounts, the Bridge having spanned space from the Well of Mimir to Asgard, arching high over Midgard, descended again in a northern span to the far edge of Niflheim, the home of misty darkness and freezing cold, where burst forth the "roaring cauldron" from which all waters flow and to which all waters return, and which watered the third root of the World Ash Tree. Niflheim was the lowest of the nine worlds of Norse Mythology, and to it went the souls of those dead men unworthy to enjoy the quiet peace of Hela's underworld region.

The name Bifröst is said to mean the "waving resting-place", and though one foot of the Bridge rested on earth, yet earth was not in its composition, but water, air and fire, the dynamic triplicity, composed it, hence its quivering and changing hues. All the Gods assisted in its building under the leadership of Odin, the All-Father of Norse Mythology, the God of Wisdom and Intuition. The Gods crossed that Bridge daily in their intercourse with men, but it was also open to man to traverse, when he was worthy so to do; the warriors who died in battle were considered worthy, and were carried over it by Odin's martial daughters to the home of the Gods.

Lest those should attempt to cross the Bridge who were not fitted, and also that notice of *all* who approached the Bridge should be given, it was necessary to appoint a Guardian. As the Gods were debating this point there came towards them a youth, who was in fact the son of Odin, but born on earth.

¹ Dr. R. R. Marrett in *Folklore*, XLIV, p. 105.

His father had wedded simultaneously the nine daughters of the Sea-God as they lay asleep on the sand of the seashore, and they combined at the same moment to bring forth a son who was named Heimdall. He was nourished on the strength of the earth, the moisture of the sea and the heat of the sun, so that he grew in perfect beauty and form and rapidly reached his full stature, when he at once sought his father arriving at the moment that the Bridge was complete. He was immediately hailed as a suitable Guardian, the Gods bestowing on him supernatural gifts of keener sight and hearing to aid him in his vigil, and they further provided him with a flashing sword, and a golden horn on which he had to blow to warn of any approach to the Bridge.

Heimdall built for himself a crystal palace on the highest point of the Bridge visible both from Asgard and from earth. He was garbed in white and gold and to keep his marvellous horn near at hand, he hung it, when not in use, either above his head on a branch of the World Ash Tree, or sank it in Mimir's Well, so that its point pierced through the bed of the well and reached to deepest Nifheim. So he performed his duties until the hour of the Twilight of the Gods approached, when it was his horn that gave the warning.

In attempting to use the seven keys we have enumerated to unlock the wisdom of the myth, we must realize that the magical key (the seventh) is but the spiritual key (the first) brought down into manifestation as Power by Those in whom the spiritual is fully understood; hence we cannot yet use that key with any real knowledge. The creation of the Bridge itself was magical—super-human; the spiritual expressed down here in a form for man's helping, but the methods of the building were not divulged nor witnessed by mankind. Odin, the All-Father and Teacher of the Builder-Gods, had magical power, for he had long previously sacrificed "himself to himself" suspended from the Tree of the World self-wounded, that he might attain Wisdom—the spiritual key, and with it the magical key, symbolized by his knowledge of wonder-working runes, which gave him *power over all things*. To complete his sacrifice, he gave his eye for a draught of the waters of Mimir's Well of Wisdom that he might have eloquence and poetry, and thus be able to manifest his Wisdom to inspire mankind. He alone could use the powers completely, yet even of those he gave to men, for he taught them the alphabet that they might in their turn create forms for their thought, their own highest expression. Speech (sound) is perhaps the most creative (magical) power man possesses. Heimdall's supernormal powers magically bestowed on him were also symbolized by an instrument for the voice—his horn of challenge. The approach of *any* man to the Bridge called forth that challenge, which attracted the Gods to him, so that, through Heimdall's horn, man could contact the magic of the Gods. In this key would perhaps be

The Interpretation
of the Story

The Use of the
Seven Keys

included the hidden magic of the sounds¹ composing the very names of the principal actors. Obviously, only preliminary suggestions can be made, for the creative (or magic) power of sound is a field of study needing its own real specialists. We can note, however, that the

The Magical Key

All-Father's own name comes from the root *OD* meaning Light; the mothers of Heimdall, and therefore the continuers of the life of Odin the Creator, were the daughters of the Sea-God Ran, and *R* is the sound symbolizing vibration and continuation; Heimdall's own name and that of his palace on the Bridge (Himminbjorg) are considered to be connected with the Teutonic Himmel (Heaven), and commence with the aspirate—unrestricted breath—symbolizing the return to the divine, for breath is life with its creative power. The Well of Mimir, into which both Odin and Heimdall sink their particular symbols of themselves—Odin his eye (organ of light) which remains there throughout the whole cycle, and Heimdall his horn which rests there periodically—repeats the sound *M*, always connected with names referring to the material plane with its rich generative powers, and thus the finish or limit of manifestation of life, its deepest envelopment, but also its potential salvation.

The anthropological (or sixth) key, which is connected with the theogonic, cosmogonical (or second) key—since man as the microcosm is a reflection of the macrocosm—is full of interest, particularly its inner or psychological aspect.

Obviously Bifröst is a Bridge from "our dead selves to higher things". By means of it our higher selves and all they contact communicate with our personal selves. Also, over it we may cross to our Eternal Home, which means becoming that which we really are—inhabitants of the divine regions. The warriors on the battle-field of personal life who have lost their lives to save them are carried over it in honour. Our personal life is concerned with our physical and psychic contacts, our emotions and our analytical mind—the lower principles of the septenate of our nature; we link that to the fifth, sixth and seventh principles (our synthetic mind, intuition and spiritual will). Hence, there is a bridge within ourselves to correspond with that in the macrocosm. The myth considers this point too. Sometime immediately previous to the appearance of

The Cosmogonical Key

the Bridge, Odin and his two brothers, in their visits to earth, had come across two forms resembling tree-trunks; one of the brothers had endowed the forms with blood and emotions, another with mind, and the third, Odin himself, with spirit; so were man and woman first alive as *self-conscious* beings. This is a symbolical reference to a time which Theosophy states was during the early Third Root-Race when man was not as we know him; his physical form was

¹ Vide pp. 235-238, Vol. I of this series.—Ed.

different, and he was not yet a mind-creature. In the middle of that Race the gift was bestowed upon him which linked his lower animal nature with his higher self, so that he became a being potentially able to achieve his own divinity in time and space. It is this gift which made a triplicity of lower and higher nature and the link between them, that the action of the three brother Gods symbolizes. When this link within man had been awakened, then was it necessary and profitable that he should know objectively of the existence of the Bridge, hence was it *made manifest* by the Gods, and then also appeared the *perfectly developed* human consciousness in Heimdall to be the guide and inspirer and tester of all men. The Bridge with its Guardian is the link for man between the three higher principles of his nature and the lower, connecting all that is above the fourth with all that is below it. Heimdall, as a son of Odin, divine by nature, is yet born on the sands of earth; reaching his full stature and beauty as a man, he seeks his father (the source of his divinity), and becomes superman. He is the flower of humanity, representing the height that man can reach—a being endowed with powers of the synthetic mind, which should hold intellect and emotion in rightful balance and wholeness, that the spiritual Wisdom and Intuition (gift of the Father) may be expressed. When the synthetic mind is a really perfect instrument, as it is symbolized in Heimdall, then we too are on the crest of the Bridge, inhabitants of Heimdall's crystal palace (for all rested there—Gods and men—as they crossed the Bridge); and that palace of crystal, light-reflecting at all angles, has no dividing walls. It is a symbol of unity, whole and light-giving; so must all men's minds become. Racial Psychology, according to Theosophy, gives the Aryan Race the fifth place in the cycle of seven Root-Races; hence that Race is characterized by its synthetic mind power (the fifth principle). Here we find again the link between the theogonic and anthropological keys, and the justification of our statement that mythologies are symbolic descriptions of the Truth of ever-evolving Divine Life expressed in human relationships for the helping of the Race to which they are given, and with particular emphasis and symbolization of the qualities which are to be the outstanding expression of that Race and its place in the Plan.

All the sevenfold nature of the Kosmos is represented by the Gods in their united work of establishing the link between man and themselves, but they are synthesized in Odin, the All-Father, God of Wisdom and Intuition. He represents in perfection the sixth principle—Wisdom-Intuition—which inspires and ensouls the synthetic mind, as he inspired mankind in the mythical stories. The Norsemen as Teutons are members of the fifth sub-race of that Fifth Root-Race, and all the Saxon heptarchy are said to be descended from their mythological lords. The fifth principle was to be therefore particularly accentuated in them, and so their mythology presents to them Heimdall as the perfect type to be at once their guardian, their challenger and their intimate link with the Wisdom,

himself perpetually receiving that Wisdom by virtue of his own attainment; always in their sight inspiring them to ascend to the crest of their own bridge and contact the intuitional Wisdom which should enlighten their own minds.

As the Gods are synthesized in Odin, as Heimdall shows the synthesis of the perfect man, so is the Bridge itself—though containing again the sevenfold nature and triple element—synthesized and animated by the quality of One Life—that dynamism of the waving resting-place. The *relativity* of the Bridge is suggested in this meaning of its name, reminding us that the Bridge is reflected at all levels of consciousness. We are eternally crossing bridges to a higher and finer understanding, but all are on the great path to the Highest, and are synthesized for humanity at present in the great Bridge which Theosophy speaks of as Antahkarana—the sevenfold bridge between our spiritual selves and their personal reflection. Remembering that there was no earth in the composition of Bifröst, though it rested on earth, and that its elements, water (representing the emotional nature) and air (representing mind) moved by the fire (of aspiration) in an upward direction—as is always the action of fire on air and water—we find further beautiful psychological symbolism. From his *earthly* home has man to commence his building, though *inspired from above*, so that the currents of movement in his bridge will be *vertical* in direction also, as is all spiritual aspiration and growth. It is in this that there lies the sure cohesion yet non-rigidity of the spiritually and psychically healthy man, the quality of a waving resting-place.

If we turn our attention to the astrological-astronomical key (the third) we find Odin is Mercury, the Light of Wisdom—Wisdom gained as he hung head-downwards from the Tree of Life, which self-sacrifice was consummated when he gave his eye for the draught of the waters of Wisdom with their powers of expression and manifestation. Astrologically, the ash tree—and the World Tree was an Ash—is connected with Venus, and it is interesting to note that a similar head-downward sacrifice of Indian mythology and directly associated with Venus, is said, according to esoteric astronomy, to refer to the inclination of the axis of Venus. There is an occult astronomical and astrological link between Venus and the Earth, Venus giving one-third of its light and life to the Earth,¹ as the Venusian World Ash Tree was the Tree of Life and Knowledge in Norse Mythology, and thereby also the Cross of Sacrifice.

But the Mercurial Odin has other voluntary links with Venus. Heimdall, his son, is *by birth Venusian*, born on the seashore as the Greek Aphrodite, and symbolizing his Venusian quality in his beauty of person and character.

¹ S.D., II, 33 (Adyar Edition, III, 42).

The symbol of Venus ♀ is the circle again, representing synthesis (the synthetic mind holding all lower expressions in perfect equilibrium), expressed in matter symbolized by the cross at its foot. When Heimdall having attained his Venusian perfection seeks his father, whose symbol ☿ (Mercury) adds to that of Venus the crescent cup of Intuition, he becomes one with his father. The supernormal powers of the Gods are given him, and are represented in form by his instrument of the horn, which he hangs either above his head crescent-fashion, thus himself transmuting his Venusian symbol ♀ into the Mercurial ☿, receptive to the spiritual Life, or he drops it vertically into the Well of Wisdom that its mouthpiece may pierce through into the deepest underworld and the limit of manifested creation. In this latter gesture he is Saturn, his horn representing the tail of ♄ (Saturn), bringing down by means of the Bridge the spiritual powers to the lowest manifestation. There we have the true spiritual understanding of Saturn; the Bridge too is Saturn, for it links the heights with the earth and the depths, but none may cross it until he has passed the challenge of its Guardian, which is really the challenge of Service.

The astrological and philosophical wisdom of India, which recognizes the Spiritual Powers that are expressed through and symbolized by the planets, states that in the realm of Pure Spirit (Purusha), Mercury withdraws in favour of Saturn. The Hindu Trinity *Brhamā-Vishnu-Shiva* (Mars-Jupiter-Saturn) gives the triple aspect of the original and ultimate Spiritual Essence. Other Gods there are, who are symbolical of the modifications and permutations resulting from the activity of Spirit in the world of manifestation; they represent the spiritual in its various aspects, *as seen from and within the various levels of material manifestation*. Mercury is one of these Gods. Since, however, all aspects are, in the purely spiritual realm, resolved into the threefold Essence, such Gods give place to one or other Figure of the Spiritual Trinity, and so Mercury "withdraws" at the highest spiritual level, and the great Shiva (Saturn) the Supreme Yogi and Ascetic alone is seen.

In this Norse mythological story, we surely have another presentation of this Indian doctrine, in the Mercury and Saturn aspect of Heimdall. To mankind in Midgard (Middle Earth), Heimdall is only Mercury, for they never see him as Saturn (♄) with his horn, (the tail of ♄) piercing to the lowest depths of creation below them, since they look *upward* to the heights of Asgard for spiritual life and inspiration. Only the Gods themselves, who dwell with Heimdall *in* the heights, can see him in his Saturn-(Shiva) form, for from their level they can see all creation, and as Gods are spiritually free *everywhere* within it, even in the depths. To them Heimdall is, in god-like service, for ever pouring down, through his horn, the spiritual life of the heights to all realms, even to the uttermost depths.

A book dealing with the more esoteric reality of Astrology,¹ postulates quite logically that the Zodiac is a figure common to all levels of evolution, and that therefore there is in the solar Zodiac a reflection of the divine Cosmic Zodiac (associated with the Gods) just as there are reflections of all other divine activities and forms. Our astrological-astronomical diagram depicts this, the thickened line showing the downward or *involutionary* flow of the Divine Life traversing the Milky Way which is called Odin's (or Irmin's) Way; astronomically, the Milky Way is of importance to the earth, and a guide to the observer of the most important constellations. (Occultly, it is said to have a more far-reaching importance). The return journey to the Divine, which is our *evolutionary* path, has its reflection in the rainbow Bridge Bifröst. In the diagram, the planets ruling the signs allotted to them in traditional astrology are placed between them in a central line on the Zodiacs, which gives us Mercury in the divine Cosmic circle nearest to the Milky Way, and again in the lower Zodiac at the height of the circle and nearest to that of the Gods. This is the mythical Odin and his "reflecting" son. Between them are the Sun and Moon twice repeated, surely the eye of Odin, which in mythology is equated with the Moon reflecting the Sun, and the horn of Heimdall, recognized also as the Moon. Both Moons (or reflected Suns) are reposing in the waters of Mimir's Well of Memory and Wisdom, in service (or sacrifice) to the human world. We may note the tail of Saturn descending to a still lower circle. Heimdall is Saturn when his horn pierces to Niflheim.

The fifth or geometric key, which is connected with the astrological-astronomical key, would need a specialized formula to express it and its connection with astronomy; but we may note the Triangle of Father-Mother-Son, the Father Odin being the apex or point, the Mothers² the left side, and Heimdall the right side, with humanity as the base line; this is repeated in the Triangle of Asgard, Midgard, Niflhem united by the Bridge, and in the Bridge itself with its three elements of water, air, fire, springing from the fourth element, earth; considered thus, anchored to the fourth element, we find the fourfold square with its sixfold cubic form of material manifestation. The Bridge itself is an arc of a circle (which is completed by the northern span reflected in Niflheim, the underworld). Heimdall's palace on the crest of the Bridge is another apex—we might call it the keystone of the Bridge—with its right and left direction to the Gods and Earth respectively. The fire-moving quality of the Bridge, with its upward-directing pyramidal nature,

¹ *Studies in Symbolism*, by Marguerite Mertens-Stienon, from which our astrological-astronomical diagram, very slightly adapted, is taken with grateful acknowledgments to the author and the Theosophical Publishing House, London, for permission to use.

² They are ninefold in the myth, for they symbolize the mother-element throughout manifestation, which in this mythology was active in nine worlds.

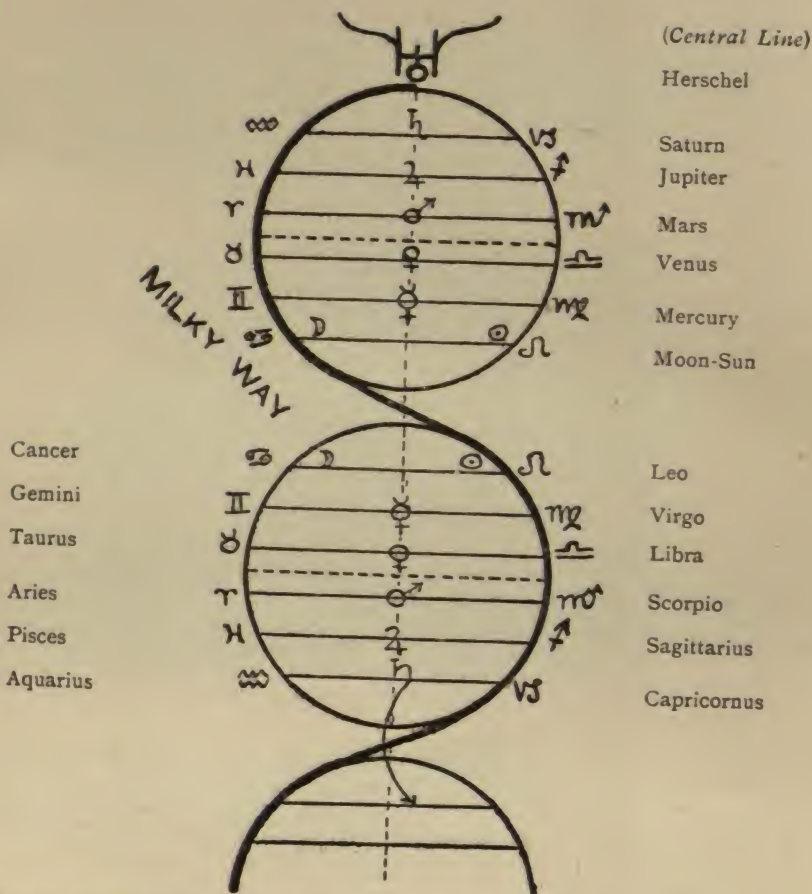


Diagram illustrating the Astrological-Astronomical Key to the understanding of the myth of the Bridge Bifröst

This diagram illustrates the statement that "The Mystery Creation" of the Gods "is repeated on Earth in an inverted sense as in a mirror" (*The Secret Doctrine*).

The lower Zodiac is that of the Solar System shown as thus reflected from a Zodiac of the Cosmic Gods, or the Hierarchy of Forces.

The Milky Way is the Path of the Gods, or the Path by which the Forces enter our Solar System, the Bridge of Involution to be reflected in our Bridge of Evolution later.

The planets which are all associated with Gods or Creative Powers in all mythologies are placed in a vertical line each between the two signs which traditional Astrology allots to them. In the reflected lower Zodiac (of our Solar System) they follow the order of the Seven Principles in the Solar System and in man.



The structure of the DNA molecule is a double helix, consisting of two strands of deoxyribose sugar and phosphate groups, held together by hydrogen bonds between the nitrogenous bases. The bases are arranged in a regular, repeating pattern, with the sugar-phosphate backbone forming the outer structure. The two strands are antiparallel, meaning they run in opposite directions. The overall structure is a right-handed helix, with the strands twisting around each other. The length of the DNA molecule is determined by the number of base pairs, and the width is determined by the distance between the two strands. The DNA molecule is the carrier of genetic information, and its structure is essential for the storage and transmission of this information.

suggests another Triangle, reflected in Nifheim. We have, therefore, an upward-pointing Triangle resting on the fourth element earth (symbolized in the four-sided Square) and reflected inversely, Nifheim being the inverted apex of the lower Triangle. Yet all is enclosed within the complete circle of the whole Bridge with its southern and northern span, just as its solar counterpart, the Milky Way, is a complete circle in the heavens, yet only one arc is visible from earth at any one time. Diagrammatically it could be depicted thus:



Diagram illustrating the Geometric Key to the understanding of the myth of the Bridge Bifröst.

and this diagram would hold good for all the other keys, spiritual, psychological, psychic, etc. Truly are there "Dots, Lines, Triangles, Cubes, Circles and finally Spheres" involved in the geometric unlocking.

We can attempt to understand the psychic key by the colours and the surface quality of the Bridge, for surfaces rather than lines belong to the psychic world. We note its quality of dynamism and constant currents as typical of psychic expression. Observations that have been made on the psychic body and aura of man reveal this same quality of currents of force and colour. (The fact that some of these observations are not generally accepted as yet by the whole scientific world, does not thereby detract from their veracity). These currents are directed through certain centres of force, which are at once the receptacles of the higher forces which pulse through us, and the distributors and organizers of these in the service of our physical and personal expression of Life, which is spiritual. That centre which focusses the more animal powers, that they may contact the higher impulse, is said to show the colours of red and green, and when a man is holding these in balance—the animal strength serving the need of the real spiritual life—then the green controls the red. So in the myth the predominant colour of the Bridge Bifröst at the foot, where it contacts the earth, is green. But as man directs his eyes

upwards to the crest of the Bridge "in *snow-white* sheen, Heimdall at his post is seen". The full control of our psychic powers and life results in the blending equally of them all into the white light, receiving the golden light of Wisdom, which can then shine undimmed, as did Heimdall's horn and his golden armour.

From all this, which is after all but a necessarily sketchy and incomplete indication of how the keys may be used, we return to the spiritual key that will in reality unlock all the other doors also. Life is divine in essence; it descends first from spiritual heights, forming for itself, and of itself, its own means of

The Spiritual Key organized upward ascent to return self-conscious in its every part to its real spiritual home. The law of its manifestation began with Brotherhood—a sacrifice of the all-fathering Wisdom for the service of the future life; hence its returning as well as its outgoing journey must be characterized by the same feature. Heimdall, the Guardian of the Bridge of Return, lives and expresses that law. His divine horn—emblem of his creative power and of his challenge to man—receives as in a cup the spiritual Wisdom, when suspended horizontally above his head, only to pour it out to all those below him, when it rests vertically beneath his feet. As we reach upward, so must we also extend a hand to those forms of life yet below us in unfoldment. Only as we do this, will life and power increasingly be given us. This is the Spiritual Law which binds the Kosmos, the Universe and all manifestation—the Law of Brotherhood and Service—and it contains the truly spiritual key to the understanding of all Life. "

The final destruction of the Bridge was announced by Heimdall with the horn-blast that told also of the Twilight of the Gods. Yet it was but one cycle that was closed. According to the myths, another shall begin, and the Gods live on in their sons, uniting with the new and perfect man and woman who issue forth from the forest by Mimir's Well. One cycle of evolution is complete, therefore the Bridge of that cycle disappears; the Life within that cycle (large or small) has completed its return, and there is now no need for a bridge of union when Unity is established. A new cycle will begin with its *own* outgoing powers, and construct in the putting forth of these its *own* Bridge of Return.

ANTHROPOLOGY¹

By A. G. PAPE

INTRODUCTION

By stating generally, and in contrast, the deductions arrived at in 1936 by anthropologists in Europe and in the United States of America—with the Smithsonian Institute as the collecting centre—we arrive at a point where it is vital to have *knowledge* of the Plan of the Evolution of Man.

This is further emphasized by the study of Symbiosis, and by the sense of frustration in the "stocktaking" side of Anthropology.

If ever the postulated Plan of the Evolution of Life and Form, found in the study of Theosophy, were needed, it is in this science of Anthropology, where without it there is little, and that of its very nature only a partial explanation, of the Whence, How and Whither of Man.

Having, then, contrasted the two main schools or public statements on Anthropology relating to the past, by again contrasting the findings of research on the later developments among human "Plants", we see where Theosophy meets Anthropology.

It is much more than a "meeting", it is a sort of *remembering*, which makes the very stones of the *Bridge* between.

I. THE POSITION OF ANTHROPOLOGY IN 1950²

No true Anthropological evidence regarding Man's origin has been put forward with one exception, since the position given in 1936 in the 1st Edition of *Where Theosophy and Science Meet*.

¹ The author has added, for the second edition, a section on "Applied Anthropology" which is given at the end of this monograph. These two, together with "A Note on Anthropology" and "A Note on the Origin of Man" following them, may be considered as parts of one article. They supplement one another. Along with these may also be read with advantage monographs on *Geology*, *Archaeology*, and *Evolutionary Biology*, given in Vol. I, and the article on *Problems of Anthropology*, by E. W. Preston, in *The Theosophist*, Vol. LIX, No. 9, June 1935, p. 231.

² The present position of Anthropology is *elaborated* in the Note which follows this monograph.—Ed.

The Exception is the evidence given by Professor Wood Jones in his "Hallmarks of Mankind" (1948). This evidence supports his call for a critical re-examination of the basis of our assumptions concerning the comparative recent emergence of Man from an Anthropoid Ape stem.

"The position", Prof. Wood Jones states, "is little better in 1947 than it was in 1857. The question is, to determine if Man possesses any definite specific specializations of his own that differentiate him decisively from the rest of the members of his phylum".¹

Also he states "the *raison d'être*, of the frustration and inadequacy of Anthropological teaching, and calls again for a re-examination of the validity of many of the widely held assumptions". He holds that the tale of Man is "told backwards", adding that the growing knowledge of the anatomy of the Primates and the new palaeontological discoveries show the true relationship of the structurally primitive Homo to the structurally specialized monkeys and apes.²

"The whole subject of Anthropology has been confused, and unco-ordinated researches have been conducted by workers not fully informed of the findings of specialists in other fields".³

The "Secret Doctrine" 1888 Edition, Vol. 2, pp. 164, 178, 197, and 689, anticipates the latest findings and conclusions of Prof. Wood Jones.

Theosophic teaching is in the VAN of Anthropology, hence the need for this 2nd Edition of "Where Theosophy and Science Meet" in this, and other scientific fields.

II. GENERAL POSITION IN 1936 OF EUROPEAN ANTHROPOLOGISTS (BRIEFLY)

The world peopled by migration from one centre by Pleistocene man.

(a) The specific unity of all existing varieties.

(b) The dispersal of their generalized precursors over the whole world in Pleistocene times.

Therefore it follows that, since the world was peopled by Pleistocene man, it was peopled by a generalized proto-human form, prior to all racial differences. The existing groups, according to this hypothesis,

¹ *Hallmarks of Mankind* by F. Wood Jones, pp. 46-47.

² *Ibid.*, pp. v-vi.

³ *Ibid.*, p. 1.

have developed in different areas independently and divergently by continuous adaptation to their several environments.

If they still constitute mere varieties, and not distinct species, the reason is because all come of like Pleistocene ancestry, while the divergencies have been confined to relatively narrow limits, that is, not wide enough to be regarded zoologically as specific differences.

The battle between the Monogenists and Polygenists cannot be decided until more facts are at our disposal, and much will doubtless be said on both sides for some time to come.

Of recent statements of "human origin", mention is necessary of "Klaatsch" as being the most daring (by comparison), *i.e.*, recognizing two distinct human types, Neanderthal and Aurignac, and two distinct anthropoid types, Gorilla and Orang-utan—he derives Neanderthal man and African gorilla from one common ancestor, and Aurignac man and Asiatic orang-utan from another. Anatomists, though unable to accept this view, admit that the recognition of more than one primordial stock of human ancestors would solve many difficulties. The questions of :

Adaptation to climate and environment ;

The possibilities of degeneracy ;

The varying degrees of physical activity ;

Successful mutations ;

The effects of crossing and all the complicated problems of heredity—are involved in the discussion, and it must be acknowledged that our *information (Anthropological) of all this is entirely inadequate*. And yet, all speculation is not based on hypotheses. Three discoveries of late years have provided solid facts for the working out of the problem :

1. The remains of *Pithecanthropus erectus* (transitional form between man and the apes) in Java in 1892.
2. The Mauer jaw near Heidelberg in 1907.
3. The Piltdown skull in Sussex in 1912.

Although the Mauer jaw was accepted without hesitation, the controversy concerning the correct interpretation of the Java fossils has been raging for more than 20 years and shows no sign of abating, while *Eoanthropus Dawsoni* is too recent an intruder into the arena to be fairly dealt with at present. Certain facts stand out clearly.

In late Pliocene or early Pleistocene times, certain early ancestral forms were already in existence which can scarcely be excluded from the Hominidæ.

In range they were as widely distributed as Java in the East, and Heidelberg and Sussex in the West, and in spite of divergence in type a certain correlation is not impossible, even if the Piltdown specimen should finally be regarded as representing some distinct genus. Each contributes facts of the utmost importance for the tracing out of the History of Human Evolution.

Pithecanthropus erectus raises the vexed question as to whether the erect attitude or brain-development came first in the story.¹

The conjunction of the pre-human brain-case with the human thigh-bone appeared to favour the popular view that the erect attitude was the earlier, but the evidence of embryology suggests a reverse order. And although at first the thigh-bone was recognized as distinctly human, it seems that of late doubts have been cast on this interpretation, and even the claim to the title "*erectus*" is called into question. The characters of straightness and slenderness, on which such stress was laid, are found in exaggerated form in Gibbons and Lemurs. The intermediate position in respect of mental endowment (in so far as the brain can be estimated by cranial capacity) is shown when the cranial measurements of *Pithecanthropus* are compared with those of a Chimpanzee and prehistoric man. The teeth strengthen the evidence, for they are described as too large for a man and too small for an ape. Thus, *Pithecanthropus* has been confidently assigned to a place in a branch of the human family-tree.

The Mauer jaw, the geological age of which is undisputed, also represents intermediate characters. The extraordinary strength and thickness of bone, the wide ascending ramus with shallow sigmoid notch (distinctly simian features) and total absence of chin would deny it a place among human jaws, but the teeth, which are all fortunately preserved in their sockets, are not only definitely human, but show in certain peculiarities less simian features than are to be found in the dentition of modern man.

The cranial capacity of the Piltdown skull, though variously estimated, is certainly greater than that of *Pithecanthropus*, the general outlines with steeply rounded forehead resemble that of modern man, and the bones are, almost without exception, typically human. The jaw, however, though usually attributed to the same individual, recalls the

¹ This question is now settled. See "A Note on Anthropology" following this article.—ED.

primitive features of the Mauer specimen in its thick ascending portion and shallow notch, while in certain characters it differs from any known jaw, ancient or modern. The evidence afforded by the teeth is even more striking. It cannot be said that any clear view of Pleistocene man can be obtained from these imperfect scraps of evidence, valuable though they are. Rather may we agree with Keith *that the problem grows more instead of less complex.*

In our first youthful burst of Darwinianism, we pictured our evolution as a simple procession of forms leading from ape to man. Each age, as it passed, transformed the men of the time one stage nearer to us and one more distant from the ape. The true picture is very different. We have to conceive an ancient world in which the family of mankind was broken up into narrow groups or genera, each genus again divided into a number of species—much as we see in the monkey and ape world of today. Then, out of that great welter of forms, one species became the dominant form, and ultimately the sole surviving one—the species represented by the modern races of mankind. We may assume, therefore, that the earth was mainly peopled by the generalized Pleistocene precursors who moved about like other migrating faunas: unconsciously everywhere following the lines of least resistance, advancing or receding, and acting generally on blind impulse rather than for any set purpose. That such must have been the nature of the first migratory movements, will appear evident when we consider that they were carried on by rude hordes, all very much alike and differing not greatly from zoological groups, and further, that these migrations took place prior to the development of all cultural appliances: beyond the ability to wield a broken branch or sapling or else chip or flake primitive stone-implements.

Herein lies the explanation of the curious phenomenon which was a 'stumbling-block' to premature systematists; that all the works of early man everywhere present the most startling resemblances, affording absolutely no elements for classification, for instance, during the times corresponding with the Chellean or First period of the Old Stone Age. The implements of Palæolithic type, so common in parts of South India, South Africa, the Soudan, Egypt, etc., present a remarkable resemblance to one

¹ See p. 131, Vol. I, "A Note on Archaeology": see also, *infra*,—"A Note on Anthropology". In the above instances there is a definite correlation of palæontological with archaeological evidence. So this difficulty which the author calls 'a stumbling block' is being gradually resolved.—ED.

another. This, while affording a *prima facie* case for, is not conclusive of, the migrations of a definite type of humanity.

It was formerly held that man himself showed a similar uniformity, and all Palæolithic skulls were referred to one long-headed type, called from the most famous example the Neanderthal (from the cranium found in the Neanderthal Cave, 1856), which was regarded as having close affinities with the present Australians. But this resemblance is shown by Boule and others to be purely superficial, and recent archæological finds indicate that more than one racial type was in existence in Palæolithic times.

A survey of Neanderthal man as manifested by his skeleton brain-cast and teeth has convinced anthropologists of two things, first, that we are dealing with a form of man totally different from any form now living, and secondly, that the kind of difference far exceeds that which separates the most divergent of modern human races. On the cultural side, no less than on the physical, the thousands of years which the lowest estimate attributes to the Early Stone Age were marked by slow but continuous changes.

Such anthropological statements, as given above, pale before those of other European scientists. Professor Hogben writes :

Of the way in which, from the bio-chemical standpoint, these internal secretions react with the cells of the body to build up its complex architecture, we are wholly in ignorance at present.¹

Professor Wood Jones, lecturing in Melbourne University, declared, the methods applied hitherto in the determination of man's pedigree were such as would not be applied to any other animal. For proper investigation, it was essential to distinguish man's inherited characters from those developed through habit. Faithful investigation led him to the startling conclusion that the anthropoid ape, commonly regarded by evolutionists as man's ancestor, was really his descendant. Both ape and man sprang from the primitive Tarsioid, but man was earlier in development. The Lemur, which some scientists asserted to be man's father, was in a different class altogether. Tests proved that man was a more primitive arrangement. The animal nearest man was the Orang, not the Gorilla, as most people thought. It was time we dropped the erroneous assumption that Darwin proved man's descent from the monkey. It was absurd to look for the missing link, since man's evolution occurred so early, and by

¹ *Comparative Physiology*, p. 242.

far ante-dated the remains discovered in comparatively modern earth-layers.

And Professor Pavlov has said :¹

Certain physiologists have noticed a change in the physical make-up of children born in the last five years. The ear has gone more to the level of the eye, thus demonstrating a co-ordination between eye and ear. In my view, the man of the next century will, given a hundred years of peace and *security*, be a better man both physically and mentally than the man today. But his brain will not be any different. It will have merely rid itself of those phobias responsible for the majority of evils in the world.

So much for European students of Man, up to 1936.

III. GENERAL POSITION IN 1936 OF ANTHROPOLOGISTS IN THE U.S.A. (BRIEFLY)

1. The Penck-Bruckner conception of the Ice Age, as composed of four distinct periods of glaciation with three well-marked inter-glacial periods, does not harmonize² with either the Palæontological or human evidence.

Both these tend to show but one main inter-glacial interval, from which there is a gradual progression towards an irregular cold period, after which follows an irregular post-glacial. There is no warm fauna that would correspond to the assumed third (Riss-Wurm) inter-glacial. And there is evidently no substantial change, such as would necessarily be brought about by a marked alteration in climate, in man's housing and living habits, from the Middle Mousterian to the Magdalenian cultural periods.

2. The Mousterian or Neanderthal phase of man begins towards the end of the warm main inter-glacial. It is essentially the period of the cooling stage of the terminal main ice invasion, reaching to, and probably somewhat beyond, its culmination.

¹ Cambridge, 1935.

² Results gathered from various expeditions in search of Early Man are correlating palæolithic cultures with pleistocene man (*i.e.*, during the glacial period). Among these are T. T. Paterson's review in *Nature*, 6-7-1940, Vol. 146, pp. 12-15 and 49-52, entitled "Geology and Early Man" wherein a world correlation is outlined. Correlations of Pleistocene Stratigraphy are also given in *Early Man and Pleistocene Stratigraphy in Southern and Eastern Asia* by Hallam E. Movius Jr. 1944.

In view of these recent investigations, the statement made here will have to be modified.—ED.

3. During this period man is brought face to face with great changes of environment. He is gradually confronted with hard winters, which demand more shelter, more clothing, more food, more fire, and storage of provisions; there are changes in the fauna which call for new adaptations and developments in hunting; and there are growing discomforts with, it may be assumed, increasing respiratory and other diseases, that call for new efforts and seriously hinder the growth of population.

4. Such a major change in the principal environmental factors must inevitably have brought about, on the one hand, greater mental as well as physical exertion, and on the other hand, an intensification of natural selection, with the survival of the fittest. Strong evidence that a relatively rapid, progressive change, both mental and physical, was actually taking place during the Neanderthal period, is furnished by the great variability of the skeletal remains from this time.

5. But such evolution would certainly differ from region to region, as the sum of the factors affecting man differed, reaching a more advanced grade where the conditions in general proved the most favourable; while to many of the less favoured groups disease, famine and warfare would bring extinction. All these agencies are known to science today; only they acted with more freedom of old when social organization and mutual aid were at a low level.

6. With these processes it is conceivable, if not inevitable, that, towards the height of the glacial invasion, the population decreased in numbers, and that the most fit or able-to-cope-with-the-conditions group or groups alone survived eventually to carry on.

Here seems to be a relatively simple, natural explanation of the progressive evolution of Neanderthal man, and such evolution would inevitably carry his most advanced forms to those of primitive *Homo sapiens*.

7. The physical differences observable between Neanderthal and later man are essentially those of two categories, namely: (a) Reduction in musculature—that of the jaws as well as that of the body—with consequent changes in the teeth, jaws, face, and vault of the skull; and (b) Changes in the supra-orbital torus, of the order known well to morphology as progressive infantilism. For both these categories of changes there are later parallelisms. *Further reduction of teeth, jaws and the facial bones has taken place since Magdalenian times, and is now going on in more highly civilized man*, of whatever racial derivation; while infantilism is commonly accepted as an explanation of the differences

of the negrito from the negro, and for the greater average reduction of the supra-orbital ridges in the negro than in the whites. It would be illogical to deny the probable instrumentality of these agencies in men of an earlier period.

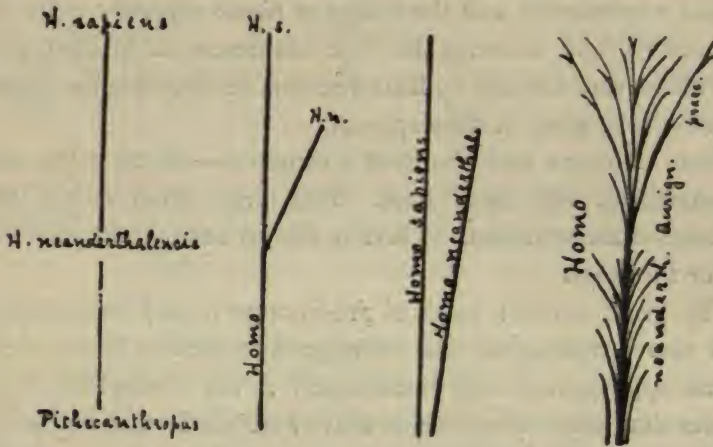


DIAGRAM 1

Various Conceptions as to the Phylogenetic Relation of Neanderthal and later Man.
(Present evidence favours the view represented on the extreme right)

8. Anthropology is thus confronted with the following conditions: Neanderthal man is of a primitive physique, appears to have ended by a sudden and complete extinction, and to have been replaced by *Homo sapiens*.

But there has been discovered no previous home of this *Homo sapiens*, nor any remains whatsoever of his ancestors; and if he co-existed with Neanderthal man, it is impossible to understand why he did not prevail sooner, or why he did not mix, or, above all, why he left no cultural remains of his existence.

On the other hand, this same Neanderthal man is now known to show wide morphological variation, leading in the direction of later man; and there are individuals among later men, even to this day, who show transitional features. This might be explained by an original common parentage of the two strains; or by an intermixture of the Neanderthal stock with the succeeding *Homo sapiens*; or by a development, evolution, of the former into the latter.

9. A critical examination of the known facts does not favour the assumption of a far-back common parentage, and early Quaternary

separation of *Homo neanderthalensis* and *Homo sapiens*, for lack of cultural evidence of *Homo sapiens* and other great difficulties.

It is equally unable to favour a separate origin of the two stocks with subsequent hybridization, for, again, there is no evidence of the pre-Aurignacian whereabouts and the doings of *Homo sapiens*; there is no trace of his ancestry, and knowing his and his descendants' characteristics, it is impossible as said already by Karl Pearson, to conceive his origin without a Neanderthal-like stage of development.

There remains but the third alternative—which is the evolution of the Neanderthaler into later man. This proposition is not yet capable of conclusive demonstration. *There is not yet enough material to decide it one way or the other.*

The great current need of pre-history, it may be accentuated once again, is more exploration and more good fortune in discoveries. Meanwhile there appears to be less justification in the conception of a Neanderthal *species* than there would be in that of a Neanderthal *phase* of man.¹

These two statements of European and U.S.A. anthropologists, as noted above, bring us sharply to the point where it is vital to have *knowledge* of the Plan of the Evolution of Man. Let us begin by considering shortly, Symbiosis (Systematic Biological Co-operation), for it is agreed in 1936 that the narrative of the ascent of man cannot be fully told until we have a more complete re-interpretation of the lives of plants and animals and of their mutual relations.

IV. SYMBIOSIS

Systematic Biological Co-operation, *i.e.*, as when two methods found in evolution co-operate in one body-form, *e.g.*, the fungus and alga composing lichen.

Symbiosis is established at the very lowest rung of the evolutionary ladder (the case of bacteria is common knowledge). Terrestrial conditions are more favourable to the advance of Symbiosis, owing to greater security and better opportunities for mutuality and beneficial correlations. Accumulated evidence shows that what is bad practice in social life is also bad practice when applied to Animals, Birds, Fish, Plants, etc. (*Vide Bibliography*).

¹ The detailed evidence of the new Gibraltar skull and brain-cast, submitted to the Royal Anthropological Institute (1st November 1927), goes far to support this assumption.

Organic Evolution is dependent on good and bad behaviour, *i.e.*, co-operative or non-co-operative. Morality and Progress are necessary parts of Organic Evolution. "Thou shalt be in league with the stones of the field" (Job), *i.e.*, the Law of Concord in Nature.

Symbiosis	<i>versus</i>	Parasitism
Partnership: Systematic, Intimate and Laborious.		Denial of such partnership and the setting up of war- fare.

Nature's method of co-operation and production is superior to our usual methods of Domestication, which aim at exploitation rather than counter-service (Lichen cited). Symbiosis enriches the protoplasm; Domestication impoverishes it.

It is a remarkable fact, connected with plant-animal Symbiosis, that a plant stimulus is required by many animals in reproduction.

The Law of Symbiotic Moderation: That the requirements of inter-dependence are such as to impose upon organisms the necessity of strict limitation of sense-gratification, contrary to the current idea that all appetites are equally normal and equally sanctioned in Nature.

A Conclusion: Symbiosis is responsible for new and improved economic and genetic values, and may lead to the establishment of a new Organum of Medicine.

V. STOCKTAKERS—THEOSOPHISTS

At this stage I suggest we consider how "stocktaking" in Anthropology still frustrates the student of the Evolution of Man.

In reviewing Dr. Dudley Buxton's book, *The Peoples of Asia*, I wrote: True to the title, this book deals with the peoples of Asia—a vast subject. It is a sort of "stocktaking", to quote the Author's words, p. 245. (*Vide Bibliography.*)

Talking of stocktakings they at least let us know exactly what one has; so does this book. But as to where the "Stock" came from, and whither tending—not a word! Probably not the Author's business. No! but it is ours. To the question, What use can this book be to the student of the Evolution of Life and Form?—I would answer, Read it, and compare it with the following table (see diagram 2).

He will, I think, then join the fellowship of those who ask that the anthropologists of the various countries jointly give some generally

accepted table of Evolution which does not ignore the successive cycles of racial growth, which causes the linking together of types separated by incalculable æons of time, and which, finally, does not put descendants into the seats of ancestors, *i.e.*, the "monkey" came from "man," not "man" from the "monkey"; (this by the way)—our cousin in fact!

Dr. Dudley Buxton's book is well written and represents an enormous amount of labour; we need such books, we also need the consideration of *causes*. The destiny of Anthropology hangs on the co-operation of the two "schools"—the Theosophical and "Stocktakers".

ROOT-RACES AND SUB-RACES

III. LEMURIAN	IV. ATLANTÉAN*	V. ARYAN	VI.	VII.
4. } 5. } Negro-Negritto 6. } Negrillo 7. }	1. Rmoahal 2. Tlavatti 3. Toltec-Mayas Quiches 4. 1st Turanian Old Chinese 5. Original Semite	1st Hindu-Egyptian		
	6. Akkadian 7. Mongolian Japanese Malay	2. Aryan-Semite 3. Iranian 4. Celtic 5. Teutonic 6. Austral-	1.	
		American New Sub-Race Type 6th Sub-Race 7. Still to come	2.	Still to come

DIAGRAM 2

* The names of the original sub-races of the Atlantean Root-Race and some of their descendants are given below. (Quoted from *Corroborations of Occult Archaeology* by G. Nevil Drinkwater, p. 23.)

1. *Rmoahals*. Lapps, Furfooz man.
2. *Tlavatti*. Patagonians, Cro-Magnons, Lake Dwellers, Dravidians.
3. *Toltec*. Atlantis itself, Egypt and N. Africa, Amerinds, early Incas and Mayas.
4. *Turanian*. Aztecs, Chaldeans 30,000 B.C., Inland Chinese.
5. *Original Semites*. Amerinds, Kabyles, Egyptians, Jews, Central Asia (Gobi) from whence the Fifth Root Race developed.
6. *Akkadians*. Etruscans, Phoenicians, Carthaginians, Basques, early Sumero-Akkads.
7. *Mongolians*. Magyars, Mongolians, Japanese, Malays, Esquimaux. (Contributed by Miss E. W. Preston).

VI. ANTHROPOLOGISTS ON THE LATER DEVELOPMENTS AMONG HUMAN "PLANTS"

On the New Sub-Race Type

Dr. Hrdlicka, the well-known anthropologist, was recently reported as giving the following list of characteristics (see below) of the New Race Type—American. It is interesting to compare these with the eleven points given of the New Sub-Race Type—the Sixth Sub-Race of the *whole* Aryan Root-Race—before the British Association for the Advancement of Science in 1923, the result of over five years' research work. If we table both statements side by side, just as they were given, we may then form our own conclusions before passing on to other germane factors:¹

Dr. Hrdlicka

(3) A slight but definite increase in the breadth of the head in the parietal region.

(2) A growing uniformity of features throughout as a result of the fusion of the many races.

The Eleven Points of the Sixth Sub-Race

(1) A distinct increase of cranial development above the ossification of the parietal and frontal bones, (drawing a line round the head at that point); this makes a distinct dome, more especially over the frontal region, the crown of the head not quite so much.

(2) (a) There seems to be a departure among this type from what is known as the low-set ear.
(b) The line of orifice of ear—corner of eye (outward, when the head is straight with the spine)—and root of nose is important when one considers the reactions of and to smell, hearing, and sight in an evolving type.

¹ Dr. Hrdlicka on the "New American Type"; and A.G.P. on the New Sub-Race Type—the sixth sub-race of the Aryan Root-Race.

*Dr. Hrdlicka**The Eleven Points of the
Sixth Sub-Race*

- (4) Blondes are disappearing ; blacks are disappearing, and the new race types are becoming intermediaries.
- (5) The colour of the eye is mixed, showing both light grey, blue grey, and green, with marked traces of brown.
- (6) The new race cannot be depicted by any distinctive type of feature. The physiognomy is more variable than any other characteristic, and there is a clear undertone which makes it possible to recognize and to separate the American type from the Scandinavian, British or German.
- (1) An increased and increasing stature. The new race is the tallest of all the white people, being "one inch taller than the Scotch".
- (3) Hair fine in texture, skin fine-grained and thin.
- (4) The eyes are specially luminous and intelligent looking, but not full or bulging. Bridge of nose early developed ; sensitive mobile lips. Eyebrows rather prominent, and frontal brain-development from corner of eye outward is large.
- (5) Type of face somewhat triangular, but not sharp (may develop to acute triangle in maturity), more like an accentuated pearshape with narrow point at chin.
- (6) The general physiology of the body is harmonious, proportionate and healthy, not at all the "all brain and no body" type.
- (7) The psychology manifests itself in (a) rapid response to sympathy, (b) pity in suffering, (c) power to comprehend principles easily, (d) quick intuitions, (e) thoroughness, (f) sensitiveness, (g) quick sense of justice, (h) a marked absence of the usual parrot-like intelligence.

Dr. Hrdlicka

*The Eleven Points of the
Sixth Sub-Race*

- (i) eager to help. These types give a general sense of Poise.
- (8) A distaste for meat and coarse foods, but not a larger appetite along any lines.
- (9) In other respects a normal manifestation for play and mischief.
- (10) This type needs sympathetic and understanding teachers.
- (7) The root stock is essentially British—probably at least 80%, the next largest contribution being the Germans, whilst there is a small admixture of the several other European peoples who have emigrated to America.
- (8) There is practically no Indian (Red) blood in the new type.
- (9) The new type is distinctly a superior race physically.
- (11) There is also a distinct difference and improvement when compared with their parents. Hence, I conclude, that there is evidence of a developing type called by some a New Race Type, or by others Sixth Sub-Race. The above characteristics mark those young children who appear to be of the new type.

The Proper "Set of the Sails"

When we realize that these new race types *are* the latest human products, our first reaction is—pardon me—rather personal: we naturally wish to know how near to this newer race-development we ourselves are.¹ This reaction develops into a rather more intensive consideration of races in general and in particular, and at last we find ourselves studying the scheme of things coming under and included by the term Evolution. We quickly realize in our study of Evolution:

There are only two kinds of people—those who *know*, and those who do not know; and this knowledge [takes on its rightful place of importance, for it] is the thing which matters. What religion a man holds, to what race he belongs

¹ See the author's article, "Who Are the Scots?" in *The Theosophist*, July 1938 pp. 298-305.—Ed.

—these things are not important : the really important thing is this knowledge—the knowledge of God's plan for men. For God has a Plan, and that Plan is Evolution.¹

We find, further, that the Plan postulates an orderly development in the mineral kingdom, the vegetable kingdom, the animal kingdom, the sub-human kingdom, the human kingdom, and the superhuman kingdom, in a definite series of seven divisions of each kingdom, with five psychological stages in each division, *i.e.*, self-discovery, self-expression, self-sacrifice, self-surrender and self-realization.² Quickly we see the importance of this knowledge, and applying it to the New Sub-Race Types (under consideration), we find them to be the latest human products of that Plan of Evolution. After ten years' study of Races, and in particular of the New Race Type, I find that most anthropological data may be placed under the heading—"Stocktaking" in the great human race garden. Unless the general plan of the human races is known, even "stocktaking" will not be reliable, for this ignoring of the successive cycles of racial growth, and the consequent linking together of types, which should be separated by incalculable æons of time, is responsible for the mistake of putting descendants in the seats of ancestors. Witness the place of the anthropoid apes! In the Plan of Evolution it will be found that the "monkey" came from *mindless man*, and not "man" from the "monkey". (See Vol. I of this Series, pp. 369-70.)

The Result

The study of the evolution of the various races of men and women, then, is necessary, for in that study and research one gains a first-hand knowledge of a very important part of the great Plan of Evolution. One finds in this study that there have been and are Root-Races, each with seven branch-races, and that since A.D. 1875 we have been in the "dawn" of the New Sub-Race Types—these types have, generally speaking, fifth and sixth sub-race parentage, and have (again generally speaking) great Devotion, and this is subject to a definite and growing emphasis of a ceremonial or ordered Service, particularly with regard to the Deva or Angel Evolution, which is linked with ourselves in this Service.

¹ J. Krishnamurti, *At the Feet of the Master*.

² See diagrams 6 and 10.



DIAGRAM 3
Lemurian Types

DIAGRAM 4
Heads of Original Lemurian
Types





DIAGRAM 5
A New Sub-Race Type

In order to give some idea of the Root-Race and branch or sub-race, and of the contrast between the Original Lemurian types and a New Sub-Race Type, the chart and drawings are inserted. In the chart (*vide* diagram 2, of Root-Races and Sub-Races in Section V above), note Future Amercian and New Sub-Race Types or Sixth Sub-Race. These are to be found all over the world, and more particularly in America and Australia.

Lemurian Types

Vide diagram 3, Lemurian Types. We may look on these Lemurian types as "Adam and Eve", so to speak. The least of these Lemurian types averaged more than twice six feet in height—so we read.

Diagram 4, Heads of Original Lemurian Types. This picture of the old Lemurians is interesting and instructive. Note particularly the eye in the back of the head, the third eye—Pineal Gland.

Contrast diagrams 3 and 4 with diagram 5 representing a New Sub-Race Type—not from America, a cradle-race, but from the Mother-Race in India.

Apropos of Pineal and Other Glands

The Intuitional Perception, resultant on the working of the pineal gland, is borne out by the existence of this New Race Type, whose predominant characteristic is this very Intuitional Capacity—*vide* statement number 7 above, made in 1923 before the British Association, where it was suggested, regarding the New Race Type, that the throwing up and out of the frontal part of the skull could only be accounted for on the hypothesis that it was due to pineal activity. It is to be understood that this takes into consideration the extraordinary reactions on this postulated New Race Type, of mental, emotional and physical contacts. The tendency of science appears to agree that, through the unfoldment of the pineal and pituitary, newer and higher perception (consciousness) is to be attained, *i.e.*, self-education. It may be stated here with truth that parents and educators cannot be of any help to the child as far as self-education (real education) is concerned, as long as they do not set before themselves the problem of Spiritual Culture, and by the same token unfold the pineal gland, the organ of Intuitive Perception. I am quite aware, to quote Professor Marcault, that

We have to recognize the truth that intuitional observations are not altogether understood and remain inaccessible under *our present* Educational System. It is the Intuition of the New Age and Race that alone can bring the scientific conviction of Man's Evolution to the positive mind. I mean, Intuition has to establish the Science of the Evolution of Consciousness between unverifiable reincarnation and the apparent mechanism or "chance" of history—contemporary Psychology is now on the verge of that Science.

Vide diagram 4 :

(a) The Pineal Gland—the single historical eye—situated centrally behind the 3rd ventricle, is like a tiny pine-cone, about one-eighth of an inch in size, and coloured grey. It is a witness to the existence of the so-called third eye as an etheric organ. It is the negative pole, counterpart and complement of the Pituitary Body.

(b) The Pituitary Body or Gland—about the size of a ripe cherry and hard, attached to the brain by a stalk. Vascular and consisting of two lobes, anterior and posterior, the latter being developed as an outgrowth from the embryonic brain.

VII. CHARTS, DIAGRAMS, ETC.

Theosophy postulates :

1. The Plan of Evolution, *at this stage*, as having seven divisions in each kingdom of Nature, with five psychological stages in each of the seven divisions, *i.e.*, Self-Discovery, Self-Expression, Self-Sacrifice, Self-Surrender, and Self-Realization.

2. That Man is composed of seven divisions : he is

- (a) Divine,
- (b) Monadic,
- (c) Spiritual,
- (d) Intuitional,
- (e) Mental,
- (f) Emotional, and last and lowest,
- (g) Physical.

3. That there are 49 sub-races of the present human Root-Race, called by some the Fifth Root-Race, by others the Aryan Race ; that there are some humans who are below the standard of these sub-races, and some who have evolved beyond.

4. That there is going on in every kingdom, at one and the same time, Involution, Devolution and Evolution.

THE HISTORY OF THE

WORLD

The history of the world is a vast and complex subject, encompassing the lives and actions of countless individuals and the events that have shaped the human race. From the earliest civilizations to the modern world, the story of humanity is one of constant change and development. This book aims to provide a comprehensive overview of this history, from the dawn of time to the present day. It explores the major events, the rise and fall of empires, the development of science and technology, and the evolution of human thought and culture. The book is written in a clear and accessible style, making it suitable for both students and general readers. It is a valuable resource for anyone interested in the history of the world and the human experience.

THE EVOLUTION OF LIFE

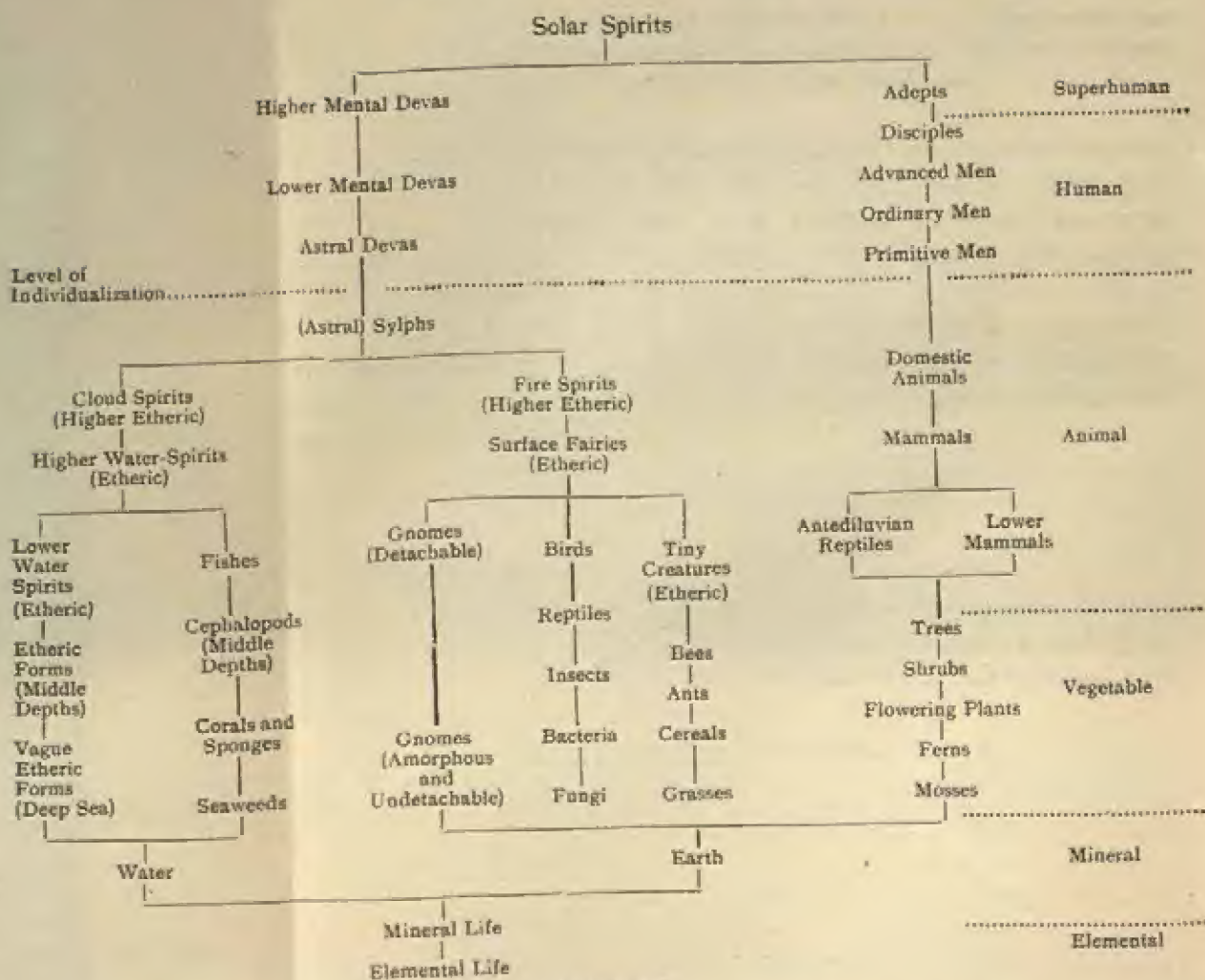


DIAGRAM 6

Diagram 6 shows the Evolution of Life, and the place *man* occupies in the Scheme of Evolution, and his inter-relationship with the other kingdoms of Nature.

Diagrams 6 to 9 are reproduced, with acknowledgments, from A. E. Powell's *The Solar System*, by courtesy of the Theosophical Publishing House, London.

The reader is recommended to study along with diagrams 6 to 9, the chart and diagrams given in the monograph on *Geology*, Vol. I, this series. He will also read with advantage the articles on "Problems of Anthropology", by Miss E. W. Preston in the 1938 June, July and August numbers of *The Theosophist*.—Ed.

5. That Man is not the only part of this scheme of evolution, but his human evolution depends on how he co-operates with the allied kingdoms of Nature. We are here sharply reminded that the present ghastly upset of the balance of Nature is our fault, and our business is to rectify it if we mean to evolve aright.

6. Professor Hogben in *An Introduction to Comparative Physiology*, (p. 242) states with reference to Breeding :

Of the way in which from a bio-chemical standpoint these internal secretions react with the cells of the body to build up its complex architecture, we are wholly ignorant at present.

At this fundamental point, of how Life uses, builds up, and germinates in the cells of the body to build up its complex architecture, Theosophy offers *two principles*, namely, *The Monad*, with potentialities which become powers, and *The Continuity of Life and Form*. When these are firmly grasped, we can then proceed to study their working out in detail, and find that they solve many such problems as this above, and of modern Science, with those more searching problems of the Priest and the Statesman.

Diagram 6 shows the Evolution of Life, and the place *man* occupies in the Scheme of Evolution, and his interrelationship with the other kingdoms of Nature.

Diagrams 7, 8 and 9 show the migrations of the five sub-races of the Fifth Root-Race, that is, the Aryan Race.

A study of these diagrams helps one to get a more comprehensive view of the Scheme of Evolution, a better understanding of the question of the place of man in the scheme, his evolution and journeyings in the different Root-Races and sub-races, and thus enables one to get a better perspective, and a deeper insight into the interesting question of races. A correct knowledge of this important subject on the part of our statesmen will, we believe, help them to solve many a knotty racial problem confronting them at the present day.

Theosophy gives the Whence, How and Whither of Man. Anthropology at present gives chiefly the geographical distribution of the Human Types, a sort of stocktaking.

WHERE THEOSOPHY AND SCIENCE MEET

THE ARYAN RACE

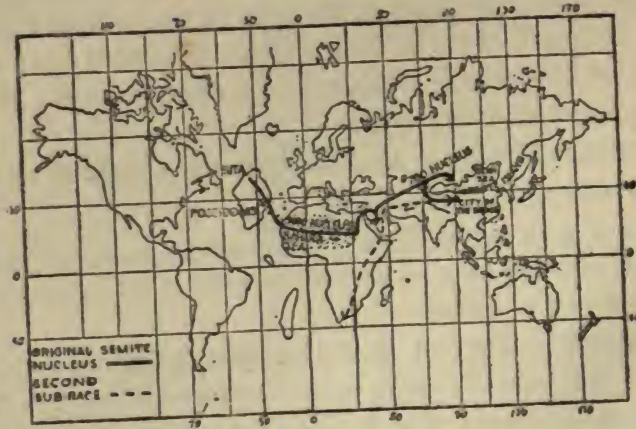


DIAGRAM 7

The Fifth Root-Race and the First Migration. (Second Sub-Race Aryan-Semite).

Diagram 7 shows the founding of the Aryan Race by the Manu, 100,000 years ago, in the vicinity of the Gobi Sea. The route is shown in the diagram. It also shows the migration of the second sub-race, (the Aryan-Semite). From the Aryan parent race came the different sub-races—Hindu, Arabian, Iranian, Celtic, Teutonic—which overflowed from the Gobi vicinity and migrated to different parts of the world. See Diagrams 8 and 9.

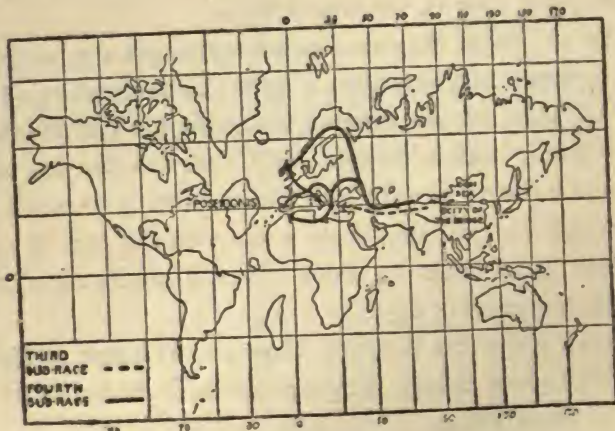


DIAGRAM 8

The Third and Fourth Sub-Races: Iranian and Celtic.

Diagram 8 shows the routes of migration of the third sub-race, the Iranian, and the fourth sub-race, the Celtic.



DIAGRAM 9

The Fifth and First Sub-Races; the Teutonic and the Hindu-Egyptian.

Diagram 9 shows the routes of migration of the fifth sub-race, the Teutonic, and the first sub-race, the Hindu-Egyptian.

Seven Divisions of Each Kingdom

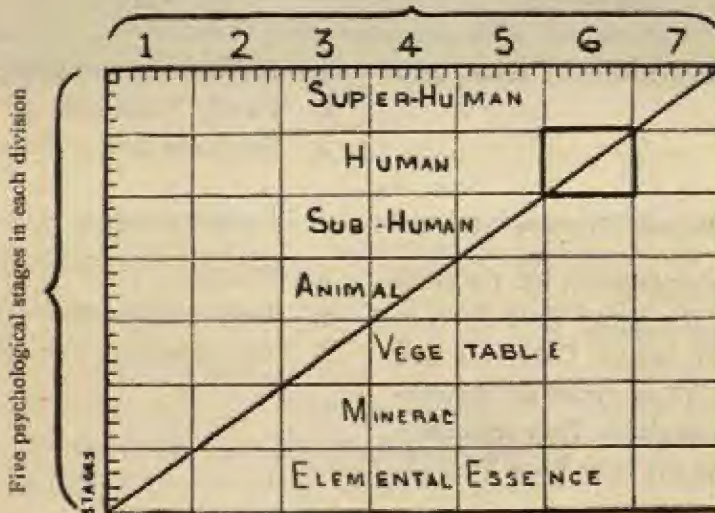


DIAGRAM 10

The oblong within thick lines shows somewhat the proportion of Man's Kingdom with the others. The cross line in the diagram shows the main line of Evolution of Life and Form, through the Seven Kingdoms of Nature; there are seven divisions in each kingdom, and five psychological stages in each division.

THEOSOPHY
ON
MEN AND WOMEN

Origin and Birthplace

Time of the Third Root-Race in Lemuria. When it was necessary in the Plan of the Evolution of Life, Form and Speech, to develop Male and Female Human Types. The "sin of the mindless" produced the Apes. The next great origin and birthplace was the Fourth Root-Race in Atlantis. Then came the origin and birthplace of the Fifth Root-Race, the Aryan, in the Shamo or Gobi Desert in Central Asia.

Types

Each Root-Race has seven sub-races.

Present Position

Shows development of the sixth sub-race of the Aryan Root-Race, in New South Wales, California and elsewhere. These types are developing the pineal gland. They are known generally as the New Race Type.

Future

Postulates a seventh sub-race of the Aryan Root-Race, preparatory to the Sixth Root-Race.

ANTHROPOLOGY
ON
MEN AND WOMEN

Origin and Birthplace

Some hold to the Anthropoid Ape origin, and are divided as to birthplace: some are for Central Asia, others for Africa.

Types

1. Divided and unsettled.
2. Chiefly "stocktaking".
3. Generally follow colour.

Present Position

1. Fluidic.
2. Acknowledges effect of Glands.
3. New American Type showing.

Future

Silent.

VIII. CONCLUSIONS

1. That the natural history of early man is not contained fully in Anthropology, as outlined in Textbooks in 1936.

2. That the much-disputed question of priority regarding geological "ages", needs the light of allied sciences thrown directly on the present dispute, before any relative chronology and man's time and place in those ages can be stated.

3. That Archæology, Biology, Botany, Geography, Geology, Psychology, Zoology, and particularly the study of Language, Sound, Glands and Brains, each overlap. That in these sciences attention is focussed on what may be termed "the Missing Links" in the chain of causes, in Anthropology.

4. That the study of man is more than Anatomy and Physiology.

5. That a knowledge of the *pari passu* evolution of allied kingdoms of Nature is vital to anthropologists.

6. "That nothing begins or ends with our earth".

7. That the searchlight thrown on the study of man's evolution by the Plan of the Evolution of Life and Form, postulated by Theosophy, shows what is missing at present in the teaching of Anthropology; and that it is the SYNTHETIC approach which shows where Theosophy meets the science of Anthropology.

A NATIONAL AND INTERNATIONAL ANTHROPOMETRIC SURVEY

The recent call in the British press by Professor H. J. Rose, President, Robert Kerr Esq., M.A., Hon. Secretary, and the writer (a Founding Fellow of the Scottish Anthropological Society) for an Anthropometric Survey, has shown that there is no agreed Anthropometric Plan for recording evidence.

We have before us a British Association Anthropometric Survey Plan, and one from the Anthropological Section of the Smithsonian Institute of the United States of America; these and other Anthropometric Plans from Europe and the United States of America need co-ordinating

Therefore, for a wise perspective and for the practical application of Anthropological Data, we need A COMPREHENSIVE AND AGREED NATIONAL AND INTERNATIONAL ANTHROPOMETRIC PLAN FOR RECORDING EVIDENCE.

This evidence being the basis for practical, constructive health, work and leisure, will help man, individually and collectively, to understand his place and stage of development, and that of the country to which he belongs in the Plan of Evolution.¹

IX. APPLIED ANTHROPOLOGY²

(Raison d'être, History and evidence of Anthropometric Survey work, England, 1902—1949).

Raison d'être

"The only object to be striven for, is the amelioration of the conditions of man by the spread of Truth, suited to the various stages of his development and that of the country he inhabits and belongs to."³

If this means anything, it surely means that one type of Truth, whether spiritual, scientific, economic or political, is not suitable for everyone everywhere at the same time, or for every nation at the same time. Further, that in fulfilment of '*The Only Object to be striven for*', you and I have to help to ameliorate the condition of each individual man, by the spread of Truth—spiritual, scientific, economic and political, suited to his present stage of development, and mark, also, the spread of such truth suited to the present stage of development of the particular country to which he belongs—the earth, minerals, plants, animals, composing that particular country. All humans and their countries are at different stages of evolution.

We have to understand, allow for, and not to interfere with, these individual and different developments in Countries, Minerals, Plants, Animals and Humans. Our duty is to further these individual *unique-nesses*. *The Only Object to be striven for*, then *demand*s, a new set of values other than those extant, in religion, science, education, economics and politics—ergo, Cultured Statesmen who know by realisation, the Plan of Evolution and the Ancient Wisdom behind it, and who are students of the science of Anthropology.

¹ This subject is developed in the section on "Applied Anthropology" which follows.—ED.

² England is only taken as an example. What applies to England applies to every other country in the world—ED.

³ Letter to the London Lodge, December 7, 1883 from the Master K. H. Vide "The Mahatma Letters to A. P. Sinnett".

The map of the past being the chart of the future, we need Statesmen, who know why I was born in England, of English parents? What I learn by being born in England is different from what I would learn by being born, say, in India, Poland or America? What have I to give as my particular and personal contribution and service to England? What has England to teach by example and witness, to other countries? A race, a country dies as a class at a University dies, when there are no more students *taking that particular subject*. What SUBJECT does England teach to-day? She is still there, and there are still English People; what do they teach individually and collectively to the world? Is the SUBJECT, known to and by English politicians and political parties? The facts regarding the state of the people and country prove that they DO NOT KNOW.

We read, in *At the Feet of the Master*: "There are only two kinds of people in the world—those who know, and those who do not know; and this knowledge is the thing which matters. What religion a man holds, to what race he belongs—these things are not important; the really important thing is this knowledge—the knowledge of God's Plan for men. For God has a plan, and that plan is evolution".

Therefore, if our Religious Teachers, Educationists, Scientists, Economists and Politicians do *not* know something of the stages of evolution and the needs of the allied kingdoms of Nature, in England to-day, it is time that they be replaced by those who do.

This matter is too serious for any delay. Too much hangs on it. For our individual and national life, evolves, involves and devolves *pari passu* with the evolution of these allied kingdoms of nature. Injury or exploitation of, and in, any one kingdom, definitely affects the whole.

Each politician then must now ask himself:

What	do	I	know	of	the	stage	of,	and	in	evolution	of	the	English	Earth	to-day?
		"		"		"		"		"			English	Minerals?	
		"		"		"		"		"			English	Plants	and
														Trees?	
		"		"		"		"		"			English	Animals	to-
														day?	
and		"		"		"		"		"			English	Men,	Women
														& Children,	to-day?

If a politician cannot prove with evidence how he is ameliorating these conditions to-day, he must be replaced by another who knows. It is dangerous to allow him to continue in any place of authority or influence.

And we ourselves without this knowledge cannot function properly, as we are meant to do, in an abundant free life, with willing and joyous health, work and leisure.

The dreadful state and exploitation of these allied kingdoms in England and throughout the world to-day, speak for themselves. These matters are our concern.

The Concern of Anthropologists

Bhagavan Das, (p. 352, *Science of Social Organisation*) states: "Anthropologists (and allied scientists) should concern themselves, with the ascertainment of men's temperamental peculiarities, abilities, and disabilities and should advise, not compel, parents and teachers with regard to the possibilities and natural vocations of each child and youth, and appropriate courses of study".

In this statement Bhagavan Das is only reminding us of the age-old need for *wisdom* in dealing with individual human evolution. In short, it is Anthropology applied to the amelioration of man, by the spread of scientific truth, suited to his special stage of development in line with that of the country to which he belongs. This means *An Anthropological Survey*, which certainly is the concern of Anthropologists.

In this machine-age our Statesmen need to *realize*, that man should be educated in creative and constructive health, work and leisure, having at the same time individual, political, economic and religious freedom and justice. All this hangs to-day, on a different set of values being put into action, beginning with Economics, which provide the means for giving this wise education and vocational training. Our Destiny, let us remember, "is to end the causes of physical poverty and physical war—in our time—and make individual economic and religious freedom, the custom everywhere".

The Only Basis for Economics

We find in *The Science of Social Organisation*, (p. 226), Bhagavan Das's translation of "The Laws of Manu" this basis, where it states that "*Due proportion* between the total number of mouths to be fed and the bodies to be clothed, on the one hand, and the quality and quantity of the land from which the food and clothing are to be derived directly

or indirectly, on the other: and, further, between the number engaged in productive labour, on the one hand, and that engaged otherwise, on the other—this, seems to be the only basis for all sound economics. Throw these out of proportion and endless *artificial* difficulties will arise".¹

This *production* basis, is the *real* credit basis—not gold or usury. This basic *karmic credit* demanding that the mouths be fed is, what is called in the West, *Social Credit*, that is, the cultural inheritance—the result of the increment of association.

In 1949 neither East nor West has this sound economic basis, hence the *artificial* difficulties and deadlocks extant in India, England and all over the World. It is the concern and business of practical Anthropologists, knowing these facts, to help to ameliorate the condition of man, by using their constructive science to help man to provide his own means of livelihood, in creative and constructive health, work and leisure.

Right of Eminent Domain

The Right of Eminent Domain, as the Law terms it, means that as FREE-ENGLISHMEN, under The Magna Carta (A.D. 1215), The Bill of Rights (1689), The Act of Settlement (1701), and The English Common Law, we have *Noblesse Oblige*, the responsibility at this time of emergency, to act effectively and wisely forthwith. For, the Government and members of Parliament can do nothing *constitutionally*, without a *mandate* from us, (you and I), as voters. We must then give forthwith this Mandate for the RESULTS we need, and which we are agreed that we need. Results, not methods, are our business. This can be realised through the voters' demand for local objectives first. Any objective—something people really need, will always find individuals very active and willing to help—urgent in enlisting and enlightening others.

Our business then, in ameliorating the condition of man, is not so much to teach, as to apply the above ideas in action for some definite objective, remembering always that it is the sense of individual responsibility which brings people to use their initiative. Your business, and mine, is not to talk about, but to act on these principles.

¹ The subject of "Food and People" was under discussion in the different countries of the world in 1949-50 under the direction and inspiration of the UNESCO.—ED.

The first local and national objective before us, in the amelioration of the condition of man, must contain within it the transfer of our local and national money and credit control of finance to the accredited and chosen agents and representatives of, *and by*, the voters. The constitutional issue, the most fundamental of all problems is *this* financial-cum-political control of the Agenda of the British and other Governments. This lack of control is the chief cause, why the amelioration of the condition of man has not been dealt with. Till this has been faced, nothing whatever has any value, meaning, or stability.

The unity to attain this first objective cannot be had by discussion or verbal agreement. The only unity which is of the least use comes with *action* and out of *action*. Thus we fulfil the *Only Object to be striven for*—the wise amelioration of the individual condition of man.

In Lord Manu's Economics, the money needed for educāre and educêrê, for academic and vocational, creative, cultural and constructive, health, work and leisure, automatically flows from *this REAL Credit basis* of issue; without more taxation and restriction, or what Lord Hewart, the late Lord Chief Justice, called "The New Despotism", that is, centralized, irresponsible, over-riding financial and bureaucratic control.

It is at this stage that An Anthropological Survey finds its right and fitting place, because by it each individual can help himself to his most effective service, and thus by precept and example ameliorate his condition. What then has been, and is being done, in this matter of Anthropological Surveys?

More Reasons for Urgency

One in nine of us are tainted with one or other of the major diseases, or Cancer: all caused chiefly by fear. Fear of insecurity, wrong diet, through ignorance resulting from wrong biological teaching with its brood of dirt, disease, crudeness and vulgarity, causing another cycle of diseases. These are not ended by delay.

17 out of every 22 mostly spend their lives in dealing with machine mass-produced articles, or, with their sale to someone else. They do nothing constructive and creative all their lives. Their education under the most recent proposals of our Education Board only produce echoes of other peoples' books and answers of other peoples' questions. This is no basis for a Noble Race.

1949 Machinery needs less and less human attention. The whole of the vast war employment does not absorb the 8 hour-day time of 71% of those concerned. Lord Leverhulme stated that *only one hour's work a day* would be needed when machinery worked, in peace time, at 75% of capacity. Ten years before he died, Marconi stated that 4 hours' work per day, with Machinery at 75% of capacity, would provide all the human needs and more.

Only one-seventh of those between 25 and 56 are needed in rotation, to make, work and mind the machinery which can produce most of the things—food and amenities, we need to-day. We have to consider what educational and vocational training those below 25 need as well as the six-sevenths between 25 and 56 not at the machines. These are the problems of our age—the Leisure Age.

Reports from Senior Officers in the 3 Services and from Executives of the War Service Factories and Civil Defence, all show appalling waste resulting from round pegs in square holes.

Minimum Anthropometric and Psychological Data

The evidence from the following results, of this minimum Anthropological Survey, is vital to our efficiency. It leads to individual economic and religious freedom and justice, the Individual Problem being the Local, National and International Problem.

Date.

Name, Sex.

Address.

Age, Place of Birth.

Nationality or Race.

Occupation (Present).

Height—Weight.

Length of Leg.

Cephalic Index. $\frac{\text{Breadth} \times 100}{\text{Length}}$

Line of ear, (orifice) and corner of eye, outward, when the head is straight with the spine.

Diet.

Question—

How would you occupy your time if you had enough money to live on ?

What would you do ?

Where would you prefer to do it ?

NOTE.—*India* needs forthwith, A National Anthropological Survey.¹

Australia needs larger British and British-Indian Populations.

U.S.A. The American Army Authorities' Report on Mental Capacity of All Classes Conscripted.

Very inferior	(Mental age 3—10 years)	10·0%
Inferior	(" " 10—12 ")	15·0%
Low	(" " 12 ")	20·0%
Average	(" " 12—14 ")	25·0%
High Average	... ..	16·5%
Superior	... ..	9·0%
Very Superior	... ..	4·5%

Recently 50,000 U.S.A. Soldiers were returned to America as unfit for Military Service. This, after landing in England.

We in Britain are in like case. Professor Henderson had to remove 35 British Soldiers from the Army in one day, these being mentally deficient. One was in charge of a Bren Gun. They had all been passed into the Army. An Anthropologist would have saved this state of things, and all the human pain and distress associated with these men and their families would have been avoided.

The National Anthropological Survey will help each individual citizen to understand his place and function where he is, resulting in constructive and creative service throughout each craft and profession locally, regionally and nationally, in *graded executive responsibility*.

¹ The Anthropological Survey of India was established in 1946 with a five-year plan. Lines of investigation were proposed under (1) Physical Anthropology (to include Sanatometry, Craniometry and Osteometry involving radiological work. (2) Biological Investigations including human growth studies, human genetics and other physiological and biological problems bearing on Anthropology. (3) Cultural Studies (under Primitive economics, technology, art, linguistics, folklore, Psychology, crime and tribal law. The survey is well-equipped and is at present housed in the Indian Museum, Calcutta (*Man*, 1948, Nos. 79 and 93, pp. 68 and 80). —ED.

RECAPITULATION OF THE CONTENTS AS AN INDEX FOR REFERENCE

Sections I, II and III deal briefly with the present unsatisfactory and indefinite knowledge of Anthropology held by western scientists.

Section IV throws the light of Symbiosis into this darkness.

Section V proves the need for more than mere "stocktaking", and states that there is in theosophical teaching a Plan of the Evolution of Man.

Section VI shows where Theosophy and the science of Anthropology meet in the conclusions on the later developments among human "Plants".

Section VII gives Charts, Diagrams, etc.

Section VIII gives the Conclusions formed from this study.

Section IX treats of Applied Anthropology.

Section X gives a list of books, read by the writer, and commended, for more detailed reference, to the reader.

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NOTE

Two pictures are given in this monograph as regards the origin and history of man—one as given in theosophical literature and the other as given by modern anthropologists. The picture given by Theosophy is much more comprehensive than that given by modern Science. Theosophy brings out the very intimate interdependence between the different kingdoms of Nature, and points out that the law as revealed in Nature is the Law of Concord and Co-operation. The monograph draws attention to the emergence of the Sixth Sub-race with its chief characteristic of the beginnings of a new faculty in man, namely, the faculty of intuition and its correlation with the simultaneous inceptive development of the pituitary and pineal glands, and invites the attention of parents and educators to the need for a change in the method of education for the children of the new race type.

Mere stocktaking is not enough, for the study of man is more than anatomy and physiology. This is strikingly brought out in the section on *Applied Anthropology*. For a satisfactory solution of the problem of man's origin, it is necessary that theosophists and anthropologists should join hands and work together. Modern Science will find in Theosophy her greatest ally and best friend. It is the synthetic approach which is needed, and this could be brought about by the coming together of Theosophy and the science of Anthropology.—ED.

A NOTE ON ANTHROPOLOGY: THE PRESENT POSITION

By C. J. JAYADEV

THE progress of anthropology in recent years has been mainly one of broadening its scope and outlook and the use of new methods in field work. The application of anthropological research in all its branches to civilized societies is much in evidence. There is also a pre-eminently psychological trend in the study of anthropological problems. The use of anthropology in colonial administration and the application of anthropological principles obtained from a study of primitive peoples to civilized societies are equally in evidence today. Another feature is "the marked expansion of activities of an international character. This tendency was illustrated by the establishment or reorganization of international anthropological congresses and societies and of large scale co-operative research projects".¹

Important advances have been made in India in physical anthropology since the first attempts at obtaining accurate figures of tribal populations during the 1931 census. Anthropological measurements and observations were standardized and taken on a large scale by Dr. B. S. Guha. His detailed studies of the racial affinities of the peoples of India have made it possible to give a connected account of the racial history of India and placed on a firm scientific basis the component racial elements of the Indian population. He has also given us the first scientific account of the physical characters of the inhabitants of prehistoric India.

The study of the human remains associated with prehistoric sites in India has revealed the existence of all the modern racial elements. Thus among the Mohenjodaro skulls three are Australoid, six Mediterranean, one Alpine and one Mongoloid. Again in the Iron age burial site of Adichanallur in

¹ E. B. 1948, p. 54.

With acknowledgments to the authors for quoting from their articles and books.—ED.

South India were found two Australoid, one Alpine and six Mediterranean skulls.

During the 1941 census a scheme for the blood group survey of India was initiated and this was carried out for the United Provinces, Bengal and Gujarat by Dr. D. N. Majumdar. According to him, blood groups data show a close coincidence with anthropometric findings establishing the claims of serology as a suitable tool for anthropological classification.¹

Some of the present-day studies of primitive cultures aim at the consolidation and critical evaluation of earlier findings. Among such are outstanding contributions of Elwin, Haimendorf, Hutton and Mills on the aboriginal cultures of India, Elkin on Australian cultures, Evans Pritchard, Nadel and Herskovits on African cultures, and Kroeber, Lowie and Wissler on American Indian cultures. Apart from such studies, the modern anthropologist is no longer preoccupied with the primitives. He has broken the barriers of his traditional world. Anthropological research is applied in all its branches to civilized societies and its main trend is pre-eminently psychological. Thus Chapple and Coon have adopted a psychological terminology for this new science of human relations as social anthropology now comes to be designated.

The recent works of Benedict, Mead, Lowie, Linton and Kardiner reveal this psychological trend as applied to primitive as well as civilized societies. Thus Lowie gives a clear analysis of German social structure and German character with penetrating insight.² The same outlook is seen in the delineation of American character and personality by Margaret Mead.³

Again Dr. Benedict evaluates the Japanese pattern of culture and the Japanese character with insight and skill. The rehabilitation of Japan in the comity of the peaceful nations of the post-war world is envisaged, and the present administration of Japan which is based on a policy of good faith is commended as heralding a new approach to international relations.⁴

¹ Majumdar, D. N., *American Anthropologist*, Jan.-March 1947, pp. 160-161.

² Lowie R. H., *The German People*, 1945.

³ Mead, Margaret, *And Keep Your Powder Dry*, 1942.

⁴ Benedict, Ruth F., *The Chrysanthemum and the Sword*, 1946.

The psycho-analytical trend in modern anthropology is evident in the works of Linton and Kardiner. They consider the basic personality structure of a tribe or community as determining that society's reaction to innovations. Many of the older Freudian psycho-analytical formulations, such as the typical Oedipus complex, have had to be revised in the light of the new appraisal of tribal cultures on the basis of their psycho-analytical anthropology.¹

Archaeological excavations in India in recent years have been based for the first time on the scientific methods of stratigraphy and have revealed the relation to one another of cultures that existed in prehistoric and early historic times. Among such are the Stone age and megalithic cultures of Southern India, the chalcolithic civilization of Harappa in the North, and the Indo-Roman trading station near Pondicherry in the South.

The Brahmagiri excavations reveal a late Stone age culture of polished axes and give definitive evidence of a Bronze age in Southern India.

Recent discoveries relating to Early Man have thrown much light on many of the abstruse problems of the origin and antiquity of man. Among such are the geological age of man, the precedence of the erect posture over brain development in man, and the antiquity of the existing races of man.

So many fossil forms have been discovered in Java that Sir Arthur Keith calls this island the paradise of pleistocene man. After the discovery of the Wadjak skulls and Pithecanthropus by Eugene Dubois during the closing years of the last century, Oppenoorth discovered the Solo man in 1932 and von Koenigswald unearthed several specimens of Pithecanthropus in association with their stone implements in 1936. Meanwhile Davidson Black and others have dug up in Choukoutien near Peking the Sinanthropus fossils and their stone tools. These discoveries in Java and China are significant in that they associate racial types of Early Man with specific palaeolithic cultures. Thus Pithecanthropus is associated with the Patjitanian culture of Java and Sinanthropus with the Choukoutienian culture of China. Again the discoveries of Solo and Wadjak men are important

¹ Linton, R., and Kardiner, A., *The Individual and His Society*, 1939, and *The Psychological Frontiers of Society*, 1949.

in being intermediate forms bridging the gap between the extinct Pithecanthropus and the extant aboriginals of Australia.¹

Researches on the large series of Pithecanthropus and Sinanthropus by Weidenreich showed that the long bones of these Early Men were already similar to those of modern man, while the skulls were much more primitive. Erect posture was attained long before the enlargement of the brain case. The attainment of the erect posture is considered by Zeuner and Wood Jones as an example of aromorphosis.

"An aromorph is a change in function and structure that produces a host of other changes in its wake, opens the way to a vast number of new developments and makes possible advances unattainable in the absence of the change".²

"An ordinary adaptational character may be highly adaptive to a certain manner of life, and be very useful, but it does not contribute to increasing the life energy of the form. The aromorph, however does so".³

"The human orthograde bipedal habit of posture and progression was certainly no byproduct of any activity such as existing anthropoid apes display. It was an aromorphosis in its own right: an achievement of primary importance, since it was not the product of the other human characteristics: it was the initiator of them all".⁴

"Of necessity an animal is pronograde or orthograde. There is no half-way stage in posture. It would be better to discard all the drawings that depict the early progenitors of Man as slouching brutes carrying themselves in postures incompatible with the dictates of gravity and to relegate to oblivion all the speculations and theories concerning the gradual rise of Man from a quadrupedal pronograde to a bipedal orthograde posture. Man's ancestors attained to uprightness by an aromorphosis that was completed as a functional entity, just as temporary uprightness is resorted to by bears, marmots and many other mammals. Doubtless after the attainment of the functional change structural adaptations were perfected in order to remould certain parts to the demands of the alteration in posture. But to misinterpret these structural readjustments as

¹ Movius, Hallam L., *Early Man and Pleistocene Stratigraphy in Southern and Eastern Asia*, 1944.

² F. Wood Jones, *Hallmarks of Mankind*, 1948, p. 72.

³ *Ibid.*, p. 72. •

⁴ *Ibid.*, p. 79.

indications of a gradual assumption of the posture is to abandon the great biological principle that *function is the creator of structure and not its offspring*.¹ . . . It (the early attainment of bodily erectness) was the necessary precursor to the changed relation between the axis of the vertebral column and the basi-cranial axis that permitted the globular enlargement of the brain case".²

Weidenreich discovered in the upper cave of Choukoutien three Palaeolithic Races skulls of the members of a single family consisting of an old man, a middle-aged woman and a younger woman. Each one of these represents a different racial type—a Mongoloid, an Eskimo and a Melanesian. On the basis of this and similar discoveries elsewhere the existence in the Pleistocene period of all the racial types identifiable with those of today is conceded.

All the four present-day racial types of man are found to be well-established and widely distributed over the earth in the beginning of the Pleistocene period. In this connection Dr. L. S. B. Leakey says:

"The presence of four completely different types of man at the beginning of the Pleistocene suggests to me that their common ancestor must be looked for in deposits at least as old as the Miocene period. The further fact that in deposits of the Miocene age we have evidence of the existence of anthropoid apes very akin to those still living today must suggest that the common ancestor of man and the anthropoids will have to be sought in deposits of still greater age. There can be little doubt now that man has been in existence upon the earth much longer than the million years assigned to the Pleistocene period".³

At this stage there is a wide gap between the ape-MEN of the Pleistocene (the Pithecanthropus Sinanthropus series) and the man-APES of the Miocene (the Dryopithecus-Sivapithecus stock). It is assumed that a series of anthropoid apes or forms intermediate between them and man filled the gap.

Along with the majority of modern biologists Keith, Gregory and Elliot Smith subscribe to the anthropoid ape ancestry of man while Osborn and Wood Jones hold that man and the anthropoids have arisen from a very early and a very lowly

¹ Italics ours.—Ed.

² F. Wood Jones, *Hallmarks of Mankind*, 1948, pp. 73-74.

³ L. S. B. Leakey, *Adam's Ancestors*, 1934 (Methuen), pp. 226-225.

primate, and that each has come by its community of structure independently through parallel evolution. In branching off the protohuman stock at a pre-anthropoid stage in the oligocene or Eocene period Osborn and Wood Jones have at the same time steered clear of the brachiation theory which was first propounded by Keith to support the anthropoid ape ancestry of man, but was later discarded by Keith himself.

The views of Wood Jones and Osborn regarding the origin and age of man are clear from the following statements of theirs :

. . . "Considered solely from the point of view of structure, Man is an extremely primitive type, and . . . though more primitive in basal structure than the living monkeys and apes, Man has his own remarkable structural specializations that distinguish him from all other mammals and appear to be his very ancient hallmarks".¹

1. F. W. Jones.
Man is older than
the Ape

"Every relevant detail of the anatomy and ontogenetic development of man contradicts any supposition that a long-armed, short-legged, brachiating animal could possibly be immediately ancestral to him or could account for the initiation of the bipedal orthograde posture".²

"The parent stem of the genus *Homo* is to be sought not among the already specialized apes of the Pliocene and Miocene periods, but from a far more primitive and generalized form living at a still more distant period".³

"The parting of the human line from that of the more specialized catarrhines occurred in Eocene times . . . fifty or sixty million years ago".⁴

"Certain races of fossil man of the last 1,250,000 years had a brain cube equal to or greater than that of modern man . . . Certain of the cave men (*Cro Magnon*) were our superiors both in average brain capacity and in average artistic ability . . . At the close of the Tertiary time there lived a race (*Eanthropus dawsoni*) with a brain cube equal to the minimum of that of the living Veddas, Papuans and Australians. The conclusion is inevitable that the main cubic evolution of the human brain took place during antecedent Tertiary time and not, as we formerly thought, during the Quaternary Age of Man or Glacial Period".

2. Osborn on
Early Man

¹ F. Wood Jones, *Hallmarks of Mankind*, 1948, p. vi.

² *Ibid.*, p. 37.

³ *Ibid.*, p. 36.

⁴ *Ibid.*, p. 33.

"I am combating the special feature of the Lamarck-Darwin hypothesis that man once passed into the highly specialised arboreal adaptations attained by the Miocene apes; finally I am inclined to separate the human stock at a geologically earlier pre-Miocene period of Anthropoid evolution . . . Anthropology is forced to share with chemistry and physics entirely new notions of space and time. To my mind the human brain is the most marvellous and mysterious object in the whole universe, and no geologic period seems too long to allow for its natural evolution".¹

The above views of H. F. Osborn and F. Wood Jones regarding the Age of Man and his course of evolution are well in accord with theosophical statements. But the majority of biologists still posit an anthropoid ape ancestry and concede but a million years for man on this planet.

The theosophical classification of mankind into root-races corresponds in its main trend with the three broad divisions—Race and Blood Negroid, Mongoloid and Caucasoid into which anthropology divides humanity.

Regarding the distribution of blood groups the correspondence of anthropological findings with theosophical statements is clearly set forth by Dr. Therese Brosse (*vide* Monograph on Physiology in this series).

While the general principle of evolution is fundamental to both Theosophy and Science they are not in accord as to the controlling causes of such evolution. Science is still largely influenced by the causo-mechanical concepts of the Darwinian age. But some of the scientists including Darwin himself expressed their belief in Design or Purpose. Teleology in some form or other largely influenced their views and is in the forefront of current biological thinking. Such are the 'felt need' of Lamarck, the 'inner urge' of Eimer, the 'striving after perfection' of Nageli, the 'Entelechy' of Driesch, the 'Emergent Evolution' of Lloyd Morgan and the 'Aromorphosis' of Sewertzoff and Zeuner.

The psychological trend in anthropological research has been stressed above. Anthropologists are concerned in the main in evaluating the outlook on life (Malinowski), the dominant psychological attitude (Benedict), the basic personality structure (Kardiner), of a tribe or community. Findings along

¹ H. F. Osborn, Annual Meeting of the American Association for the Advancement of Science, Des Moines, 27-12-1929.

such lines of research are similar to theosophical statements regarding the psychological characteristics of human races as set forth by Professor J. Emile Marcault in "The Evolution of Man".

The Future of
Primitive Com-
munities

Anthropologists are divided in their views regarding the future of primitive communities. While some consider that they require protection in the form of reserves, others hold that they should be prepared for culture change. In this connection Elkin says :

"The day is past when human beings, even black or brown, can be regarded as cultural guinea pigs. And just as this idea of conservation is now viewed with disfavour, so too is the idea of protection out of date, as the purpose of aboriginal policy; the aim is now positive and dynamic, not negative and static—it is progress, health, increase, citizenship".¹

Regarding the gradual disappearance of such peoples Professor H. J. Fleure said in 1927 :

"The hunting and collecting peoples are unable to face modern European commerce and its accompaniments. The Tasmanians are gone, the Bushmen, the Australians, the Pygmies seem to be going, the Eskimo are being kept from extinction by stringent measures".²

The latter view is in accord with the concepts of cyclical changes in civilisation which are fundamental in theosophical literature. Similar statements also find expression in scientific and historic works. Thus on the analogy of the birth and death cycles of living organisms Oswald Spengler in his *Decline of the West*, says that every civilization has its lusty youth, its strong manhood and its disintegrating senescence. Sir W. M. Flinders Petrie has actually traced out these processes of growth, maturity and decay in the sculptures of ancient Egypt and other nations.

An Anthropologists'
Warning

That scientists should no longer pursue a policy of isolation and detachment from world affairs but should take their share of responsibility for the consequences of their findings are brought home by a recent communication of

Professor A. P. Elkin :

"For a number of years scientists have been gradually emerging from the 'ivory tower' and reaching a conviction that they must take

¹ A. P. Elkin, *Man*, Vol. 46, 1946, No. 81, p. 96.

² H. J. Fleure, *Races of Mankind*, 1927, pp. 16-17.

some responsibility for the social implications of their research and its applications. Quite apart from the fact that they themselves are citizens, with duties as such, they recognize that to put specialized knowledge and power into the hands of other citizens, particularly politicians, financiers and industrialists, whose attitude is not scientific, can be fraught with great danger to the commonweal. For this, many scientists no longer feel that they can eschew responsibility. The problem is difficult. The search for understanding must lead whither it will, unfettered; but must he who finds, hand over his discovery for the use of all—the socially responsible and irresponsible alike? The heart-searching and fears following on the recent harnessing and release of atomic energy reveal the problem in all its starkness—a solution must be sought and found. . . . We may be responsible, or rather blameworthy, for knowledge which we hold in our journals and within our coteries, but do not impart to the public in such a way that they can understand the facts and their implications. To see the dangers arising, false doctrines spreading, peoples being fooled by wicked propaganda, and truth being repressed, without using our knowledge publicly in the national and international interest, is at least to saddle ourselves with a share in the guilt for the evil which follows. This applies to aspects of the Versailles Peace Treaty, and to the events leading up to the recent war; but it must not apply to the next Peace Treaty. Anthropology must spread its knowledge on social, national, and international problems. . . . Knowledge on these matters, if spread in all countries through the people to Government, would

(a) expose the shallowness of race-doctrines which are used to rationalize wars, and so would lessen the risk of war;

(b) increase knowledge of each other on the part of peoples of different nations and colour; and so improve international relations;

(c) gradually eliminate exploitation and repression of native peoples; create respect for, and understanding of, their cultures; and hasten their progress in civilization".¹

There is immense scope for the student of research in almost every branch of modern anthropology. Our knowledge of man—whence, how and whither, is far from being complete or satisfactory. Increased knowledge in recent years has only added to the sum total of our existing problems. Race still

Research in the
Future

¹ A. P. Elkin, *Man*, 1946, Vol. 46, No. 78, p. 92.

baffles us more or less completely. In spite of the immense progress in human genetics there yet remain great possibilities in this field.

In physical anthropology, while great progress has been made in measurements and blood group studies, there is still great scope for investigations of other techniques, such as somatotype or constitutional type studies, the findings of which sometimes align themselves with other racial criteria but are often found to cross-cut race. Investigations of constitutional types in correlation with the other established anthropometric procedures are needed. The study of finger, palm and sole prints or dermatoglyphics is yet another field the importance of which is scarcely recognized.

The present need in social anthropology is a broad synthesis of the different schools of thought. The functionalists are concerned with the sociological analyses of particular cultures while the historical school aims at their detailed historical reconstruction on the basis of cultural change. In addition to these main schools which are gradually coming together, the psychological trend in anthropology is much in evidence in the culture pattern or Gestalt school as well as the psycho-analytic school. The integration and unifying of these different lines of research as envisaged by Chapple and Coon¹ in the U.S.A. and by F. C. Bartlett² and others in England will, it is hoped, entrench this science of human relations on a firm scientific basis.

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¹ Chapple, E. D., and Coon, C. S., *Principles of Anthropology*, 1947.

² Bartlett, F. C., Ginsberg, M., Lindgren, E. J., and Thouless, R. H., *The Study of Society*, 1946.

A NOTE ON THE ORIGIN OF MAN ¹

By D. D. KANGA

WE have at present reached a very interesting stage in the ever-fascinating question regarding the origin of man. One of the so-called "Missing Links" between man and ape has been found. Professor Raymond A. Dart startled the world in 1924 by announcing that he had discovered a new type of fossil anthropoid in a limestone cave at Taungs in Bechuanaland, South Africa, which has a greater resemblance to man, particularly in the formation of its teeth, than it has to the gorilla or chimpanzee, and that it is "probably on or near the line by which man has arisen". This discovery of manlike ape was not accepted by many European and American men of science who thought that Dart's Taungs ape might be only a variety of chimpanzee or a dwarf gorilla.

Dr. Robert Broom of the Transvaal Museum, Pretoria, however, thought otherwise. In his search for a new missing link or type of primitive man, Broom made two notable discoveries of skulls of apes, the first in 1936 in the cave at Sterkfontein² and the second at Kromdraai in 1938,³ which were far more man-like than the gorilla and chimpanzee. These three original fossils may be described as "near-men" or the long-sought-for missing links. They are tabulated as follows :

¹ The monographs on "Evolutionary Biology", "Archaeology" and "Geology", Vol. 1, may also be profitably read along with this note.

Read further the following in connection with this subject.

(1) Chapter VI on "Man's Origins" in *The Web of the Universe* by E. L. Gardner. (2) "Modern Science on Man and Anthropoid Ape," pp. 143-153, in *Evolution* by Basil Crump. (3) "Problems in Anthropology" by Miss E. W. Preston, pp. 233-241 of *The Theosophist*, June 1938. (4) "New Light on the Origin of Man" by W. F. S. in *The Canadian Theosophist*, December 1938.

With acknowledgments to the authors for quoting from their articles.—Ed.

² *Nature*, 138, 486-488 (September 19, 1936).

³ *Ibid.*, 142, 377-379 (August 27, 1938).

TABLE 1

No.	NAME	YEAR OF DISCOVERY	DISCOVERED BY	PROBABLE AGE	CRANIAL CAPACITY	POPULAR NAME
1	<i>Australopithecus africanus</i> Dart	1924	Raymond A. Dart	Lower Pleistocene	500 C.C.	The Taungs Ape
2	<i>Plesianthropus transvaalensis</i> Broom	1936	Robert Broom	Upper Pleistocene	450 C.C.	The Sterkfontein Ape
3	<i>Paranthropus robustus</i> Broom	1938	Robert Broom	Middle Pleistocene	600 C.C.	The Kromdraai Ape

The 'Jaw of the Ape-Man *Paranthropus Crassidens*' discovered by Dr. Robert Broom in November 1948 and 'an almost complete huge jaw with most of the teeth' discovered by his assistant Mr. John T. Robinson in 1949, are at present under investigation.¹

The following table (not drawn to scale) shows the probable periods given by different scientists for the age of man :

TABLE 2

AGE OF MAN			
Periods	In Million Years ²	Scientific Statements	Occult Statements
Holocene (Recent)	0. 1	Prof. Huxley, ³ about 100,000 years.	
Pleistocene	1	Dr. Grabau, ⁴ about one million years.	
Pliocene	7	Dr. Robert Broom	
Upper Miocene Middle Lower	19 20	Dr. Elliot Smith, } Dr. W. K. Gregory } Dr. H. F. Osborn, } Sir Arthur Keith }	18 million years (<i>The Secret Doctrine</i>)
Upper Oligocene Middle Lower	35		

¹ *Nature*, 163, 903 (June 11, 1949).

² "Problems in Anthropology," by Miss E. W. Preston in *The Theosophist*, June 1938.

³ *Evolution*, by Basil Crump, p. 153.

⁴ *Ibid.*

Dr. W. K. Gregory and Dr. Milo Hellman of New York, who are probably the greatest authorities on mammalian teeth, on invitation by Dr. Robert Broom and Prof. Raymond A. Dart, visited South Africa in July 1938, studied the three original fossils described above, and submitted their report to the Pretoria Museum. In view of the importance of the subject, they have given in *Nature* a brief statement of their findings in a short article entitled "Fossil Man-Apes of South Africa".¹ This article is also reviewed in the column "News and Views" of the same number of *Nature*.² Their report "confirms, and at the same time extends, the implication of Dr. Broom's diagnosis of the human affinities of his recently discovered relics of new types of fossil prehomínids". Prof. Gregory and Dr. Hellman conclude their article in the following words:

The facts and considerations cited in our fuller report can scarcely leave a well-founded doubt that the Pleistocene man-apes were survivors of the diversified *Dryopithecus* stock of the late Tertiary, which ranged from Spain to India and southward to East Africa, and that they were, in both a structural and a genetic sense, the cousins of the contemporary human branch. Their numerous transitional conditions tend strongly to connect the families of apes and men at no very distant geological date (perhaps lower Pliocene). They seem to give no support to the idea of the separate existence of the human stock in early Tertiary times.

The report further supports the following statement made by Dr. Robert Broom in his article on "The Pleistocene Anthropoid Apes of South Africa".³

Clearly, during the Pleistocene there lived in South Africa a number of large-brained anthropoids which resemble man in the shape of their premolars and in having relatively small canines, and in having the glenoid region, in at least some forms, remarkably human in structure. These Pleistocene Apes are probably the modified descendants of forms that may have been widely distributed over Africa in Pliocene times, and it is probably from one of the Pliocene members of the group that man arose.

Furthermore, the view which Dr. Broom expressed at the Conference held at Philadelphia, U.S.A., in March 1937, where famous anthropologists met to discuss the problem of early or primitive man and his origins, shows how very near he is to theosophic teaching. Declaring himself an "unorthodox

Dr. Robert Broom's
View

¹ *Nature*, 143, 25-26 (Jan. 7, 1939).

² *Ibid.*, p. 18.

³ *Nature*, 142, 377-379 (Aug. 27, 1938).

natural scientist, he said: "I firmly believe in evolution, no thinking scientist could deny it today, but I believe evolution was brought about by non-material forces, spiritual forces if you will, the highest form possible on earth—man".¹

Once again, in an authoritative article which Dr. Broom published in *The Forum* (England), Sept. 5, 1938, he took a more advanced position, as will be seen from the following conclusions, given in his own words. These will be found to be of absorbing interest by students of Theosophy:

The discovery of this family of very man-like apes certainly throws new and very unexpected light on the origin of man. It makes it almost certain that man arose in the Pliocene, and it makes it probable *that he arose rather rapidly. All that would be required to turn an ape like Paranthropus into a man would be an increase in the brain development.* The occasional occurrence of microcephalic idiots among men suggests that the rapid and great growth of the human brain may have been the result of a mutation or a series of mutations, but if so it seems to me *such mutations must have been deliberately brought about by some spiritual guiding power and could not have been the result of blind chance.*² (Italics ours.—D.D.K.)

While we are considering the human brain, it is worth while to reproduce here the views of Dr. Osborn, a leading anthropologist, to which he gave expression in his address at the annual meeting of the American Association for the Advancement of Science, held at Des Moines, Iowa, on Dec. 27, 1929:

To my mind the human brain is the most marvellous and mysterious object in the whole universe, and no geologic period seems too long to allow for its natural evolution

We must admit that this idea comes very near to the teaching of *The Secret Doctrine*.

The scientific view before the recent discoveries regarding the origin of man was: (1) that man descended from ape (Lamarck and Darwin), (2) that both anthropoid and man had a common ancestry (Keith, Osborn, Gregory and Elliot Smith), and that the separation of the human stem from the common stem was placed in the early Miocene. Broom, as a result of his discoveries, goes back to the older view but in

¹ Quoted from "Problems in Anthropology" by "Janaki" in *The Theosophist*, p. 417 (Aug. 1937).

² Quoted from "New Light on the Origin of Man" by W. F. S. in *The Canadian Theosophist*, December 1938.

another form, and says that man came from some ape-like ancestor in the Pliocene in Africa.¹ H. P. Blavatsky has taken into consideration these and other viewpoints but differs from them all and puts forward a new viewpoint stated below which is worth considering. She definitely says: "Occultism rejects the idea that Nature developed man from the ape, or even from an ancestor common to both; but, on the contrary, traces some of the most anthropoid species to the Third Race man of the early Atlantean Period".²

The following points emerge from the recent literature on the subject:

1. Dart discovered in 1924 the Taungs ape which was man-like.
2. As the skull was that of a very young ape, the world was not ready to accept it.
3. Broom discovered two fairly well preserved new forms of very man-like apes in the Pleistocene caves of South Africa in 1936 and 1938 respectively.
4. They show conclusively that there lived in South Africa in mid-Pleistocene times large man-like apes far more man-like than the gorilla and the chimpanzee.
5. That they were biped and possibly walked nearly erect.
6. That they had teeth almost human.
7. But that they had brains of only 450 C.C. to 600 C.C., that is, one-third or half the size of that of modern man.
8. That they are too late to be quite ancestral to man, but they must be nearly related.
9. That there lived in Africa in Pliocene times some man-like apes, and that the fossil forms described above (Dart's and Broom's discoveries) are their little modified descendants.
10. That man has been derived from one of the Pliocene members of the group, and that he, somehow or other, began to develop a large brain.
11. That the marvellous human brain has not evolved in the normal way during geological periods from the brain of an anthropoid ape.
12. That the development of the larger brain in man has been deliberately brought about by some spiritual guiding power³ and is not the result of chance.

¹ Vide, Table 2 on p.

² S. D., II, 195 (Adyar Edition, III, 191).

³ A glance at diagram 7, facing p. 288, Vol. I, this series, will make it clear why man-like apes and savage-mindless men are different from MAN.

The Brain Capacity
of the Man-apes

The last point, namely, that *the larger brain in man is due to some spiritual guiding power*, brings the scientific viewpoint very near to that advanced in the literature of Theosophy. Let us see how it is so. So far as form goes the newly-discovered "man-apes" of South Africa resemble man more than they do the gorilla and chimpanzee, but with this difference that the brain capacity of the man-apes is one-third or half that of the average man. The mystery is: What made man develop the large brain? "How is the chasm between the mind of man and animal to be bridged?" asks Madame Blavatsky in her classic work *The Secret Doctrine*,¹ or, in other words, she pertinently puts the same question in another form: "How, if the anthropoid and homo primigenius had, *argumenti gratia*, a common ancestor—in the way modern speculation puts it—how did the two groups diverge so widely from one another as regards mental capacity?" And the answer which she gives is worth pondering over: "'Primæval man' was *man* only in external form. He was *mindless and soulless* at the time he begot, with a female animal monster the forefather of a series of apes.² This speculation—if speculation it be—is at least logical, and fills the chasm between the mind of man and animal".

The wonderful patience and perseverance and the large measure of success with which the scientists have traced the origin of man call forth our highest admiration. The scientist of today has arrived at a very important stage in his researches into human origins. *He has come face to face, for the first time, with the difficult problem as to the difference in the cranial capacity of man-like ape and man.* How shall he account for this fundamental difference between animal and man? *This inquiry brings us to actual grips with the important question as to what is man in reality.* So far, the pedigree of man which the scientists have traced is the pedigree of *man's body* and not that of *man* himself. The Ancient Wisdom, of which Theosophy is the modern expression, describes man thus: "Man is not body; the body is but the garment that he wears; and man can never be understood, when you leave out of his pedigree the Spirit that makes him eternal, and the intelligence, which is an aspect of that Spirit, differentiating itself in the world of matter, and manifesting as intellect and as mind".³

What is Man in
Reality?

¹ S. D., II, 199 (Adyar Edition, III, 195).

² See pp. 21-22, this part.—ED.

³ Annie Besant, *The Pedigree of Man*, p. 2.

The Theosophical
View-point

The modern world owes a deep debt it can never repay both to H. P. Blavatsky and to Annie Besant for the light and vast knowledge they have brought to bear on this important question. H. P. Blavatsky has treated it at length in the second volume of *The Secret Doctrine* under the sub-title "Anthropogenesis". Annie Besant puts the gist of her teachings briefly and beautifully in the following words:

She (H. P. Blavatsky) taught us that, in trying to understand man and his pedigree, we must mark three great lines of evolution: First, the spiritual, which is by far the most important, for Spirit is the master of matter, guides it, shapes it, builds it into form; and *unless the spiritual pedigree be known, man remains an insoluble problem*. Then, at the other pole of human nature, the physical, the pedigree of man's body. The spiritual pedigree is the coming down by slow degrees of Spirit into Matter. The physical pedigree is the result of the upward climbing of the Spirit through the Matter, which it shapes for the expression of its own inherent powers. Then, looking at these two great lines, one from above downwards, the other from below upwards, *we come to a point at which a third line of the evolution of man's pedigree joins these others, and links them both to form the human being. That is the intellectual evolution; that is the coming of the Ego to take possession of his physical tabernacle, and to link to that tabernacle the Spirit which has brooded over it, which has by its subtle influence shaped and fashioned it*. When we have traced the spiritual evolution, the physical evolution, the intellectual evolution, then there unfolds before us a vast picture, in which we can see the whole pedigree of man traced in broad illuminative outlines, and we can begin to understand something of the wonder of that Human Nature, which is God, God in manifested form, divine in essence and in powers.¹

Diagram 7, facing p. 288, in the monograph on "Chemistry" in Vol. I, of this series, graphically illustrates the points mentioned in the above quotation and shows in what way man is different from a man-ape or a savage mindless man. See also appendix to *Evolutionary Biology*, pp. 369-370, Vol. I, this series.

¹ *The Pedigree of Man*, by Annie Besant, pp. 3-4. (Italics ours, D.D.K.)

PHILOSOPHY AND THEOSOPHY

BY B. L. ATREYA

PHILOSOPHY—ITS RELATION TO SCIENCE, RELIGION, MYSTICISM AND OCCULTISM

SCIENCE is a rational and systematized knowledge of the world based on careful and, as far as possible, controlled observation of facts of sensory experience. It aims to be precise and verifiable. It tries to understand events in terms of their causes, complex phenomena in terms of simpler ones, and wholes in terms of their constituent elements or parts. It proceeds by analysis, and in its attempt to understand the Universe it tries to avoid reference to anything which is not within the actual or possible sensory observation. It is clear that such an approach to Reality, however valuable it may be to the practical man, is not free from limitations and defects. From its very nature as knowledge based on sense-observation, it has no concern with what may not be observed with the senses. The sensible alone, however, is not the real. There may be imperceptible entities and facts which are beyond the capacity of sense-observation, even when it is highly aided by the finest instruments ever invented. Again, owing to the vastness of the Universe and manifoldness of its aspects, science has to divide itself into several branches, which pursue their investigations more or less independently of one another, with the consequence that each science gives us a partial and therefore a defective picture of the world. There is in fact no science which makes an attempt to know the world as a whole, and to know it in all its aspects at the same time. It is just conceivable that the Universe as a whole may be quite different from what we know of it through the eyes of the various sciences, for every analytic view of the world is apt to miss those characteristics which are peculiar to it as a whole. Another defect of the scientific approach to Reality is that every science has to start from certain unproved assumptions, and make use of certain concepts

which it never cares to examine. On deeper thinking many of these assumptions are found to be questionable, and the concepts self-contradictory. Science, therefore, fails to satisfy man's craving for a complete and rational understanding of the Universe as a whole. It does not give us a satisfactory world-view.

Does religion satisfy it? A careful study of the various religions of the world will show that the primary aim of religion is not to offer a world-view, but to bring about emotional satisfaction, redemption, salvation or perfection of the individual. Religion has always been more of a personal and emotional attitude, a feeling of reverence and worship, a tendency to propitiate in order to be helped and redeemed, than a strictly logical and objective enquiry into the nature of the Universe. No doubt, every religion, directly or indirectly, implies and has, as its foundation, a world-view; but it is not built on a conscious, rational, systematic and comprehensive understanding of facts. It is often vague, incomplete and uncritical; received ready-made from tradition, scriptures and influential personalities; and accepted on mere *faith*. Its contents are determined more by instinctive needs, emotional moods and wish-fulfilling imagination than by critical observation and rational and comprehensive thinking. Hence the world in which religious people have always lived and preferred to live has been more or less an imaginary world of their own creation rather than the world of facts and realities. That is why there has always been a conflict between religion and science. It is futile, therefore, to go to religion for a correct understanding of the world as a whole.

Where shall we then go for a comprehensive and true view of the Universe? There is a natural demand within us to know the Universe completely. This demand expresses itself in the form of knowledge called Philosophy. Philosophy aims at a most comprehensive and coherent view of the Universe as a whole, leaving no aspect of it unnoticed. It is not actuated by any motive other than the desire to know. Its goal is truth, its guide is reason, and its field of investigation is experience of all possible kinds and levels. Unlike science, it is not confined to the facts of sensory experience. Philosophy has as much regard for the facts and theories of Science as for the aspirations of Religion and the intuitions of Mysticism. It serves as an eye-opener to the various sciences by pointing out the defects of their method, the limitations of their fields, and the inadequacy of their theories about the nature

of the Reality. It questions their assumptions, and logically examines and often explodes their descriptive and explanatory concepts. It reconciles the conflicting views of the Reality arrived at by the different sciences by pointing out the shortcomings of each, and brings about an all-comprehensive synthesis in which all of them may find a suitable place. In the same way, it brings about a reconciliation between Science and Religion. Unlike religion, it is absolutely impartial in its investigations. It does not defend or justify any dogma, but discovers, judges and criticizes with the least concern as to the consequences. Although philosophy is not to be guided by any religious motive, it cannot afford to neglect religious aspirations and religious experiences of mankind. Religious attitude and phenomena being themselves facts, they have to be reckoned with and understood. They must find a proper place and explanation in a comprehensive world-view.

Philosophy is related to Mysticism and Occultism in the same way as to Science and Religion. Mystic phenomena —experiences of beings or realities through some other means than the ordinary perceptive processes or the reason—like others, are also facts of experience, and philosophy as a comprehensive and rational interpretation of the entire experience cannot afford to neglect them. They too must find a proper place in the world-view of a philosopher. Philosophy can never be identified with mysticism. Reports of mystic phenomena are great assets for philosophy, but they are not philosophy itself. In themselves mystic experiences are fragmentary, incoherent and unsystematic. They require the genius of philosophy to be synthesized and correlated with other facts of experience.

The contention of occultism is :

The world of our senses does not present the whole of Reality ; but higher spheres exist, and mankind is enabled to gain insight into this higher world by reason of "second sight" or "clairvoyance". That which to us is the world forms but a small section of the actual universe of being. The world is not alone in possessing unknown spheres and gradations ; what is true of the world is true also of mankind.¹

Occultists tell us, on the evidence of their own experience, that there are entities, facts and events in the world, and aspects and qualities of things, which remain unknown to the "normal man" in whom the faculties adequate to know them have

¹ Konstantin Oestereich, *Occultism and Modern Science*, p. 136.

not yet developed. As there are hidden and unrevealed aspects of things and entities in the Universe, so are there latent senses and faculties in man with which they are known. All of us can, by undergoing an occult training, develop these latent powers of perception.¹ Endowed with these capacities, we shall behold much more in the Universe than the scientist does with his finest instruments of observation, or the philosopher does with his fine logical intellect. The occultist tells us that in the course of our spiritual evolution all these latent faculties of knowledge will become patent, but that this natural course of evolution can be hastened through a certain occult training. He also tells us that there exist such spiritual beings as have perfected themselves and whose knowledge of the Universe verges on omniscience. Philosophy cannot neglect the voice of occultism, for, on *a priori* grounds, it cannot dismiss occultism as trash and negligible. There is nothing illogical in the contention of occultism. We can never be sure about the unreality or non-existence of what is not revealed in the "normal" man's experience. If occultism claims to open new vistas of experience before the extremely limited vision of man, it is certainly welcome to philosophy. True to his calling, a philosopher ought to take notice of its evidence in formulating a comprehensive and coherent view of the world. Occult phenomena and occult lore, however, are not to be taken by philosophy at their face-value. In all observation and description of facts, whether of a normal or of occult kind, there is always an admixture of fact and fiction. Occult phenomena have, therefore, first to be carefully examined by experimental methods, and then to be brought into relation with our normal modes of existence and knowledge. Thanks to the efforts of the Society for Psychical Research, they are now being brought to light, and are being carefully observed and understood. The findings and conclusions of Psychical Research are now as important to a philosopher as those of Physics and Chemistry, if not more.²

We are now in a position to form a correct idea of what philosophy is. It is a disinterested effort to formulate a coherent and comprehensive view of the Universe as a whole, and to interpret particular facts in relation

¹ B. L. Atreya : " Supernormal Factors in Human Personality " in *The Proceedings of The Thirtieth Indian Science Congress*, Calcutta, 1943, pp. 258 f.

² B. L. Atreya : " A Plea for Psychologists' Interest in Psychical Research " in *The Journal of The Benares Hindu University*, Vol. VII, No. 1, pp. 162 f.; B. L. Atreya : *A General Review of the Present Situation in Indian Philosophy*, pp. 27-31.

to and in the light of the whole. The success of a philosophical hypothesis depends on its being all-inclusive. As the writer has said elsewhere :

An ideal philosophical hypothesis must admit the claims of all demands of our life—intellectual, emotional and active. It must take note of all types of experience—waking, dream, sleep, and those moments of conscious forgetfulness which are experienced when we are merged in the contemplation of the beautiful, the true and the good ; no less than these, of the mystic experience which has always been reported by some throughout the history of the world. It must be a grand synthesis of all the positive doctrines of all the philosophers of the world, of all religions, of all the discoveries of science ; for, we must remember that all the great thinkers, whether in science, religion or philosophy, have taken note of some such aspects of the Reality as cannot be denied to belong to it, and so should not be denied a place in the ideal philosophy, no matter if they are transcended and transmuted in the Reality as a whole. Philosophy, thus according to us, is the most comprehensive scheme of concepts, prepared under the guidance of reason, in which all the contents of the actual and possible experience must fit ; in which all the concepts of science, religion and other philosophical systems must be offered a rightful place.¹

A philosophical system is defective in so far as it fails to satisfy this condition. No philosophical system, it may not be out of place to mention here, has yet attained this high ideal of perfection. We have yet to build a philosophy which may satisfy these requirements. Yet every philosophical hypothesis represents a facet of the all-comprehensive Truth, which is our ideal. Until the ideal is reached philosophy will always be supplemented by religion based on faith.

A BRIEF SURVEY OF THE RECENT AND CONTEMPORARY PHILOSOPHY OF THE WEST

We have given above a general idea of what the function of philosophy is, and what in general an ideal philosophical system ought to be. Man has been philosophizing since the dawn of his reflective consciousness. The history of philosophy records great philosophical speculations in all ages. The world has seen great philosophers like Socrates, Plato, Aristotle, Plotinus, St. Augustine, Descartes, Locke, Berkeley, Hume, Leibnitz, Spinoza, Kant, Fichte, Schelling, Schopenhauer and Hegel in the West ; and Yājñavalkya, Gautama, Kaṇāda, Kapila, Patanjali, Bādarāyaṇa, Vaiṣṇṇava, Krishna, Buddha, Asanga, Vasubandhu, Nāgārjuna,

¹ B. L. Atreya, *The Philosophy of the Yogavāsiṣṭha*, T.P.H., 1936, pp. 586-587.

Shankara and Rāmānuja in the East, who have made everlasting contributions to Philosophy. We are not concerned here with the evolution of the philosophical thought of the world, nor with the great philosophical hypotheses of all times and climes. In this Series, WHERE THEOSOPHY AND SCIENCE MEET, we shall confine ourselves to a brief survey of the recent and contemporary philosophical thought of the West, simply because it has been developing side by side and under the influence of modern science. We shall also give a bird's-eye view of the ancient Indian philosophical speculations, because they represent the main types of philosophical schools of the world, and also because at present the world has once more become interested in them and is looking towards India for light and inspiration.

THE GERMAN IDEALISM OF THE EIGHTEENTH AND EARLY NINETEENTH CENTURIES

In the eighteenth and early nineteenth centuries Germany ruled over the world of Philosophy. Kant, Fichte, Schelling, Hegel and Schopenhauer were not only the greatest thinkers of their age, but their names will go down to posterity as some of the greatest philosophers of all ages. They were great idealists, and whenever the world feels disgusted with Materialism, Individualism and Hedonism in future, it will find inspiration and guidance in the immortal writings of these great thinkers. It is interesting to note that their philosophy is very much in agreement with the deepest philosophy of India, namely, the Vedānta, and with the doctrines of Theosophy. We shall, therefore, begin our survey of the Recent and Contemporary Philosophy of the West with a short account of their philosophy.

Kant (1724-1804) : Immanuel Kant set before himself the task of critically determining the sources and validity of human knowledge. Before him there had been a prolonged dispute as to whether all human knowledge originates in sensations (*Empiricism*) or in some inborn, innate ideas of the intellect (*Rationalism*). Locke (1632-1704), Berkeley (1685-1753), and Hume (1711-1776) were the great exponents of the first view, and Descartes (1596-1650), Spinoza (1632-1677), and Leibnitz (1646-1716) of the second. After prolonged thought Kant came to the conclusion that Rationalism was justified only in so far as some ideas do not come from the senses, namely, those which make knowledge necessary and universal. The idea that every event must have a cause, for example, cannot originate

in sensation. Empiricism, on the other hand, was justified only in so far as sensibility alone gives us reality. For scientific knowledge, therefore, which aims at formulating universal and objectively valid judgments about the real world, both sense and understanding (sensations and ideas) are necessary. Kant has also determined what exactly is the contribution made by the mind to scientific knowledge.

Knowledge consists of (1) sensations and (2) their synthesis brought about by the active mind and completed in three stages, namely (a) Perception, (b) Understanding and (c) Reason. Let us note the contribution of the mind at each stage of the synthesis :

(1) PERCEPTION : Perception has two aspects or factors, (a) content of manifold and variable sense-qualities, and (b) uniform and fixed relations of space and time in which the former are placed. The latter are not received from without as sensations (*a posteriori*), but are contributed by the perceiving subject as *a priori* (prior to experience) forms. All sensations have to be cast in the forms of time and space which the mind supplies immediately whenever it receives the sensations. The mind has got these forms ready-made for the purpose. They are necessary for all perception, hence universal. It is only on account of all sensory experience being cast in these forms that mathematical judgments are valid for all experience, mathematics being the deductive science of space and time.

(2) UNDERSTANDING : Perceptions are synthesized by the Understanding. The latter constructs out of the former, objects, relations and laws which form the world of our knowledge. The synthetic forms of the understanding which are the constitutive principles of the world are called Categories by Kant. By a thorough study of all possible kinds of judgments under which we comprehend the world, he discovered 12 such categories, namely, Unity, Plurality, Totality ; Reality, Negation, Limitation ; Substance, Cause, Reciprocity ; Possibility, Essence, and Necessity. Like time and space on the lower stage of synthesis, the categories are *a priori* principles. They are not derived from sense-experience ; they are pure, innate and transcendental. They synthesize all perceptions, and express this synthesis in the form of judgments. So they have objective necessity. They are the fundamental laws of nature, for all determinate knowledge must be cast in them. Our world, therefore, consists of objects, relations and laws formulated by the categories of understanding. Although the categories are *a priori*, and although no knowledge of the sensible world is possible without them, they have no validity outside

our experience. A common world and science are possible because there is a transcendental Unity in the categories. Each man's understanding operates in the same way. This fact presupposes a Consciousness of humanity, a Universal Self, a Super-consciousness, a higher "I" than the individual ego, which acts in each ego as the transcendental unity of apperception. This Self is not found in experience, but is a necessary postulate to account for the unity and universality of knowledge. Just as the Subject of knowledge is beyond the pale of all knowledge, so are the objective sources (stimuli) of sensations. Nevertheless they have to be postulated. Kant calls these ultimate causes of sensations "things-in-themselves", as distinguished from the objects of our knowledge which are "things-for-us". We can never know the former as they are, for all that we know is constituted by sensations and the *a priori* forms of our own understanding.

(3) REASON: There is a still higher synthesis of knowledge which the faculty of Reason brings about. In its synthesis Reason does not keep itself confined within the sensible experience, but comprehends even that which is beyond the limits of actual or possible experience, that which is unconditioned and unrelated. The judgments of Mathematics and of Physics (empirical sciences) are valid and universal, for they deal with the *a priori* forms of all experience (space, time and categories), but the doctrines of Metaphysics, a product of Reason, do not enjoy universal validity and acceptance, because they deal with those things which are beyond our experience (actual or possible). The synthetic forms of Reason, namely, the Ideas of Self, God, and Totality of the Universe, can never be made objects of our knowledge, and so should not be thought of in terms of the categories of understanding, which have no legitimate use outside sensible experience. But when we do so, contradictory judgments are equally upheld with reference to God, Soul and the Universe. The ideas of Reason are, however, not altogether useless. They are Regulative Principles of our knowledge. Experience would certainly be better synthesized in case there existed God, in case there were a Soul, and in case the World were a Totality of related things. They bridge the gulfs between Science, Ethics and Religion.

The world of experience, which includes both the empirical ego and external nature, is, as above stated, conditioned and governed by the forms of perception and by the categories of understanding. But

the moral urge, the feeling of *ought* within us, is unconditional and absolute. It is a categorical imperative. We feel that we ought to do the right without any consideration of consequences. But *ought* implies *can*. As moral beings, we are, therefore, free agents. Our moral consciousness further implies or presupposes that we are deathless, for moral perfection at which the feeling of *ought* aims is not attainable in this short life. The fact that in this world rectitude and happiness do not go together presupposes that there is an omniscient and just God who will reward the good in some future life. Thus although theoretical Reason cannot establish God and immortality, and leaves us free to believe or not to believe in them, our moral sense (practical Reason) postulates their existence.

POST-KANTIAN PHILOSOPHY: Although Kant made room for morality and religion, he closed the doors on metaphysics (Ontology). His philosophy sets limits to human thinking, and bids it confine itself within the phenomena, and never to talk of the noumena beyond merely postulating their existence as "things-in-themselves". In fact if we are strictly Kantian, we cannot even say that "things-in-themselves" *exist*. They are unknown and unknowable according to Kant. The Soul and the "things-in-themselves" are mere postulates. Discussion about them is bound to lead us into a jungle of antinomies. His immediate successors in Germany, however, did not pay any heed to his advice. They began their metaphysical thinking where Kant had ended it, and built huge mansions of philosophy by their extraordinary intellect and insight.

Fichte (1762-1814): The Ultimate Reality, according to Fichte, is the Moral Ego which he variously calls the Pure Will, the Active Reason, the Spirit, and God. It expresses itself within us in the feeling of *Ought*. There are no "things-in-themselves" behind the objects of our experience. The entire objective world or nature which Fichte calls Non-Ego and all the individual egos originate in the Moral Ego. The Moral Ego ("I") being a free Moral Activity, it creates the Non-Ego ("Not-I") as a field for its activity, and as an obstruction to itself which is necessary to all moral struggle, and individual egos for the realization of Its moral ideals through them. Thus the world is a unique theatre of moral action, where not only the drama, but also the actors and the stage are created by the Creative Director, the Moral Ego. This Ethical Idealism reminds us of the Hindu conception of the world as *Dharma-kṣetra* in which every individual is a moral agent (*karta*).

Schelling (1775-1854): The Ego and the Non-Ego being correlatives, we cannot rightly regard the former as the Source of the latter. Both must be derived from a higher Principle which may be neither Ego nor Non-Ego. It should be neutral and indifferent in its nature. Thought does not produce reality. The former can only reproduce the latter. So they are correlatives. They too must have a Common Source which is the same Indifferent and Neutral Absolute. The Absolute Reality, therefore, according to Schelling, is the Transcendent Impersonal Reason. It gives rise to both mind and nature. Mind and nature develop according to the same laws. The entire activity of nature is rational and purposive. There is nothing dead in nature. Matter, vegetables, animals and human beings are graded expressions of the dynamic activity of nature which is the cosmic artistic Creation of the Absolute. The highest kind of self-realization occurs when both will and sense (morality and science) are transcended in self-forgetfulness of the æsthetic experience. Æsthetic feeling is the *summum bonum* of man, for the Universe is the work of Divine Art. It is in the contemplation of the beautiful, both in Nature and in Art, that the presence of the Deity is realized, and not in mere theoretical knowledge where the presence is merely conceived. Schelling's philosophy is called Æsthetic Idealism.

Hegel (1770-1831): The Ultimate Reality, according to Hegel, cannot be outside the pale of our knowledge. The common Source of the Ego and Nature does not transcend them, but is immanent in both. Nature and mind are the successive modes of the perpetual process which itself is the Absolute Reason. The self-unfolding process of Reason is immanent in the Universe, and is perfectly knowable. The real is rational and the rational is real. Having passed through the successive stages of inorganic and organic evolution, the Absolute Reason becomes personified and self-conscious in man. It is both the subject that knows and the object that is known. The Categories of Reason (discovered by Hegel with great labour) are not mere modes of thought; they are also the modes of being of things. There are no "things-in-themselves" beyond the self-unfolding process of Reason, which not only conceives reality but also produces it or rather expresses itself through it. So logic and ontology are the same for Hegel. Philosophy, in which Reason becomes fully self-conscious, is the highest expression of the Absolute Reason. The Absolute cannot be conceived as one or the other of two opposite notions,

as it is an all-comprehensive Idea in which all contradictory notions are synthesized. The Absolute is not a single limited reality, not a composite of particular realities, not a system of related partial realities, not matter, not life, not even the totality of all lives. It is the All-comprehending Absolute Spirit which is manifesting in every partial reality in order to realize itself as the Self-Conscious Idea. Hegel's Idealism is called Logical Idealism.

Schopenhauer (1788-1860): The world is an ideal construction. The presentations have no external reality behind themselves. They are mere ideas. The thing-in-itself, the Reality at the root of all phenomena, is the Will (blind and irrational Craving) which we can intuit within ourselves. It is characterized by perpetual and insatiable desire, to satisfy which it goes on creating the body and the objects. The body is nothing but the objectification of the Will. Although the objects and the bodies which it creates for the realization of its desires are infinite in number, the Will is one. The Will is the reality, the world-idea is a mere illusion. The Will always remains unsatisfied and unhappy on account of its boundless desires. So suffering and pain are common throughout creation. There is no meaning in our efforts for happiness, for all pleasures are short-lived and limited. Pleasure is negative, a temporary relief from pain, which alone is positive. The only way of deliverance from suffering is "denying the Will-to-live". How is the Will-to-live denied? Not by suicide indeed! for it is an act of affirmation of the Will-to-live. A temporary denial of the Will may be effected in æsthetic contemplation. But complete deliverance from the Will-to-live comes through moral self-denial. Schopenhauer also believed in reincarnation of the individual. It is needless to point out that much is in common between Buddhism and the philosophy of Schopenhauer.

MATERIALISM AND POSITIVISM OF THE MID-NINETEENTH CENTURY

The dazzling success of the scientific approach to the Reality more or less blinded the eyes of the middle decades of the nineteenth century to the deeper realities of life. A strong wave of Empiricism, Materialism and Positivism swept all over Europe. Moleschott (1822-1893) attempted to explain the entire phenomenon of life in terms of matter and force. Vogt (1817-1895) regarded thought as simply a secretion of the

brain. Büchner (1824-1899) considered everything in the Universe as produced by matter and motion. Life was generated, according to him, spontaneously out of matter. Czolbe (1819-1873) regarded everything supersensible as mere nonsense. According to Haeckel (1834-1919) the entire cosmic process is a continuous evolution—from the simplest atoms to the highest being, man. There is no fundamental difference between the living and the non-living. Everything is material. Matter with force as its essential aspect is the only reality, and all things have gradually evolved out of it under strict mechanical laws. According to E. Mach (1838-1916) there is no intrinsic difference between physical and mental phenomena, both being capable of being resolved into some common elements, or a neutral stuff. According to Ostwald (b. 1853) both matter and consciousness are forms of energy which is the ultimate Reality. Even those scientific philosophers of the time who did not subscribe to Materialism could not escape the anti-supernaturalistic tendency of science. They advocated a philosophy which refrained from all sorts of supernaturalism, and regarded the world as a closed natural system governed by mechanical laws. Comte (1798-1857) advocated Positivism, according to which our knowledge is limited to the phenomena alone; beyond them it cannot go. The task of a philosopher is not the quest of the unknowable, ultimate Reality, but a systematization of the methods and results of the various sciences. We should give up all metaphysics and our religious devotion should be diverted from the unknown God to Humanity, to serve which should be our highest aim. Herbert Spencer (1820-1903), although admitting the existence of an "unknown" and "unknowable" ground of the phenomenal world, believed that human knowledge was confined to the phenomena. He applied the scientific theory of evolution to all spheres of existence. The original stuff out of which the world is evolved is a homogeneous something, the inner nature of which is unknown and unknowable, but which may be called force or matter-and-motion.

REACTION AGAINST MATERIALISM

These empiricistic, materialistic, agnostic and positivistic tendencies evoked a very strong reaction in the form of widespread currents of Idealism, Spiritualism, Vitalism, Pragmatism and Neo-realism which have been advocated by great thinkers in Germany, England, France, Italy and America. These movements have greatly succeeded in bringing back man's lost faith in himself and in his spiritual ideals.

IDEALISM AND SPIRITUALISM

Idealism and Spiritualism are very old doctrines of philosophy. By idealism, which is very closely allied to spiritualism, we mean a world-view which insists that the Reality as a whole is most precisely conceived in terms of ideas or thoughts rather than in terms of matter and motion, that the entities behind the phenomenal world are more of the nature of mind and spirit than of the nature of the unconscious atoms, and that the values—truth, goodness and beauty—are not merely subjective creations of man, but they have a cosmic significance, and are discovered rather than invented by him. The greatest leaders of this movement in contemporary philosophy have been Fechner, Lotze, Eucken and Husserl in Germany; Green, Bradley, Bosanquet, Ward, Sorely and McTaggart in England; Ravaisson, Renouvier and Lachelier in France; Croce and Gentile in Italy; Lossky in Russia; and Royce and Hocking in the United States of America. We summarize below the doctrines of some of these philosophers.

G. T. Fechner (1801-1887): All things are psychical in nature; physicality is only phenomenal. Behind all physical appearances are souls. The soul of the entire Cosmos is called God. There is a hierarchy of souls in the world. The higher souls include the lower ones. All souls are included and unified within God. The entire Cosmos is the physical body of God.

Lotze (1817-1881): There must be in the Universe an all-comprehending Unity of which the individual entities are modifications or limited forms. We can conceive of this Unity only on the analogy of our own inner being, the spirit or the soul. In nature there must also exist other spiritual beings than man.

R. Eucken (1846-1926): The highest reality is the Spiritual Life which is in and above nature. Man comes in contact with this Life in mystic intuition, and can participate in its progress towards perfection. By coming in contact with the Spiritual Life man gets the revelation of Truth, Goodness and Beauty. The real purpose of human life is not to indulge in sense-pleasures but to rise to the height of Divine Life by active moral endeavour.

E. Husserl (b. 1859): All being of things is being in consciousness. Subject and object differ only in degree and not in kind. Over and above the empirical ego there is a transcendental ego which is the source of all

objects and their essences. The totality of all the transcendental egos is the Supreme Being or the Spirit.

T. H. Green (1836-1882): Human consciousness is not a product of inanimate natural forces. There must be a Spiritual Principle immanent in nature. The Spiritual Principle which is responsible for unity and intelligibility of nature, and for the unity of self-consciousness in man, is the Universal Consciousness or God. Religion and morality consist in realizing fully this true and highest Self within us, which is above all change and therefore immortal.

F. H. Bradley (1846-1924): The Ultimate Reality is the immediate Experience, the undifferentiated whole in which being, knowing and feeling are all one. Distinctionless in itself, it contains the possibility of all distinctions. All the concepts of science are self-contradictory and therefore mere appearances. They are rooted in the Absolute Experience which cannot be characterized by any one of them. The Absolute is much more than all the appearances taken together. The appearances do not mar the unity of the Absolute. In the Absolute all the appearances get transmuted and fused, and their mutual conflict is overcome. The Absolute is above all changes and evolution, although within It countless waves of evolution may be going on.

James Ward (1843-1925): There is no ultimate dualism of mind and matter. Experience is a duality in unity. The deepest Unity is God, who sustains the world which is an act of self-limitation on His part. There is an infinite variety and plurality of psychical beings of all possible grades, some of whom may even be higher than human beings. All the monads or spiritual entities of which nature consists are free agents. They are immortal and cannot be effaced out of existence.

McTaggart (1866-1925): There is no such thing as matter. The world is spiritual through and through, consisting of selves which are self-conscious and conscious of others. The selves are immortal and they incarnate from one life to another. The Universe is eternal.

F. Ravaisson-Mollien (1813-1900): All nature is spiritual, and there is no difference of kind in its phenomena. The inorganic, organic and psychic phenomena differ only in degree. God is the source of everything in the world.

J. Lachelier (1832-1918): Thought is the Ultimate Reality. The entire objectivity, regularity and orderliness of the world is a construction

of thought. Thought creates objects in time and space by its own free will. The Universal Thought is called God.

B. Croce (b. 1866) : There is a unity throughout nature. Thought and objects are not independent except by abstraction. All that we know is conscious experience. Over and above the experience of finite minds there is the Spiritual Reality which is not exhausted by them, and which is the beginningless, endless, ever-active and creative historical process.

N. O. Lossky (b. 1870) : The objective world consists of events and processes which are expressions of the activities and processes of purposive spiritual entities, although all of them may not be fully conscious. The world is an organic whole grounded in the Super-Cosmic Absolute which is the source of all free substances.

Hocking (b. 1873) : The entire world is One Self which is infinite in its depth and mystery. Human self is but an imperfect expression of it. It is on its way to perfection, freedom and immortality, which it has been realizing progressively. Every one of us is responsible for his present and future spiritual status.

THE VITALISTIC PHILOSOPHY.—*Bergson* (b. 1859) : The Ultimate Reality is not a static something. It is the ever-changing, ever-moving *élan vital*, vital impulse, a spontaneous living force akin to consciousness in us. It is never experienced as being, but as duration and as ever becoming. Life, both universal and individual, is ceaseless spiritual activity incessantly creating new forms and becoming ever richer as it proceeds. Matter itself is *élan vital* in movement, but the movement called matter is in the direction opposite to that of the vital urge. It is the interrupted flow of endless duration, a kind of relaxation of the spiritual activity. It originates in the flow of the *élan vital* in the same way as the extinguished parts of a rocket fall to the ground as dead particles. Matter is a principle of individuation ; it divides the Universal Life into individual personalities. It also provokes intensive activity of the spirit by coming into its way. Consciousness is not a mere product, epi-phenomenon or function of the brain. The latter is only an instrument and not a source or origin of consciousness. We cannot understand Reality through the intellect which abstracts and spatializes the concrete and ever-flowing life. Instead of entering the heart of Reality, it hovers around it. Like a cinematographic film, it attempts to picture movement by having only a series of unmoving snapshots. Science, which is a product of intellect, gives only such a picture of Reality. It is only

through *intuition*, an immediate and direct experience of the continuous flow of life, that we get an insight into the nature of life. The unceasing, creative, free life at the centre of all life is God.

TELEOLOGICAL VITALISM.—*H. Driesch* (b. 1867): On experimental evidence in the field of Biology, Driesch maintains that the phenomena of life cannot be satisfactorily explained in terms of physics and chemistry. In the behaviour of all animals there appears to be a plan or purpose. The inborn urge in animals to action cannot be explained in terms of mechanical and chemical processes of the body. In the growth of living organisms, both within the embryo and outside it, a vital and purposive agency seems to be operative, which Driesch calls *entelechy*, after Aristotle. The world as a whole, too, must have some ultimate goal to which it is moving. God is the ultimate *entelechy* (soul) of the Universe as well as the ultimate potentiality of everything within it.

PRAGMATISM.—*William James* (1842-1910): James was very much opposed to the extreme form of intellectualism which leads to a static and finished view of the Universe as one Absolute, above time and change. He was keenly alive to the practical needs of life. He takes freedom, novelty, individuality and plurality for granted. Our consciousness, according to James, is not merely cognitive, but also active and selective. It selects its own objective world out of chaotic and manifold sensations, in accordance with its practical needs and emotional interests. Intellect is only an instrument in the hands of life. We think to act. Expediency is the test of truth. If an idea does not work, does not serve our emotional and practical interests, it cannot be true. There is a super-consciousness comprehending all finite consciousnesses. James believes in the existence of saving and helping spiritual powers and of God. But on account of evils and imperfections in the world, God, according to James, cannot be regarded as an infinite, omnipotent and omniscient being. God is growing stronger and perfect. The world is not a finished product. It is in the making. We can co-operate with God in making it better with our effort and wisdom.

FICTIONISM.—*H. Vaihinger* (b. 1852): The chief contribution of Vaihinger to philosophy is that thinking cannot unravel the mystery of the world. Most of our ideas about reality are no more than fiction. All the concepts of science, religion, ethics and æsthetics are merely fictitious solutions of our real problems which can never be solved intellectually. It is only when we really live and come in intuitive contact with

the Reality that we understand life. Then all speculative problems disappear.

THE PHILOSOPHY OF EVOLUTION.—*Lloyd Morgan* (b. 1852) is the father of what is called the "Emergence" theory of evolution. According to this theory there is a progressive unfoldment of quite new qualities in the course of evolution, which can never be reduced to, or explained in terms of, the previously evolved ones. Physical events are of graded complexities—atoms, molecules, organic cells and organisms. In each case of greater complexity, some new qualities emerge which were not present in the previous and less complex groups of events. Thus there is a new quality in atoms which is not found in electrons; still newer ones in the molecules which are not present in the atoms. In this way vitality emerges in organisms and mentality in animals. In future and higher stages still newer qualities, unknown to us, may emerge.

S. Alexander (b. 1859): Time, Space and Motion are not separate entities. As such, they are mere abstractions from the Original Stuff of the world, which is four-dimensional Space-Time in movement with distinguishable point-instants within It. This stuff spontaneously forms into many groups of point-instants, the simplest of them consisting of various velocities and extents. In some patterned groups of these, a new quality, namely, "materiality", emerges. More complex patterns acquire still newer qualities, such as colour, taste and smell. In the same way under certain conditions there emerges life in some collocations of point-instants. Under certain other conditions emerges consciousness in some living complexes. The process of emergence of new qualities has not ceased. There may be further emergence of yet unknown qualities. The Universe is tending towards the emergence of "deity", the quality of God. Morality and true religion consist in acting and living in such a way as would hasten the world-evolution towards the emergence of Divinity.

F. C. Smuts (b. 1870): "Evolution is a rising series of wholes". In the Universe there is a hierarchy of wholes—atoms, cells, organisms and minds. Each whole is individual and unique. The highest whole known to us is personality, which has the unique quality of creative freedom. The holistic *nisus* in the Universe is a sure indication that our aspirations for truth, goodness and beauty are likely to be realized in course of time and are not vain hopes.

Hoernle (b. 1880): In evolution not merely something comes into being which was not there before, but also the new (the emergent) is

bigger (more complex), higher (more organized), and better (more perfect), than what preceded. More comes out of less. But by logic more cannot come out of less; life cannot come out of the non-living. So the discernible direction in the evolutionary process towards greater perfection indicates the existence of a power (whatever it may be called) giving that direction, which must possess perfection antecedently in itself.

REALISM.—*Whitehead* (b. 1861): Mathematical physics has wrongly reduced nature to a mere meaningless and endless flow of movements which in themselves are destitute of taste, colour, smell, sound, feeling and value. This is due to "the fallacy of misplaced concreteness". The concrete reality is not only characterized by sound, taste, colour, smell and feeling, but also by those qualities which our moral, æsthetic and religious consciousness apprehends. Science wrongly leaves religious, moral and æsthetic experience and free and creative will out of account. In the world nothing is isolated. There is no gulf of real otherness separating two events. Everything suffuses everything else, and is suffused thereby. All events are so mutually interlocked that it may be said that "everything is everywhere and at all times". The relation of a thing to its environment constitutes a part of its very essence. The Universe as a whole is a cosmos, a unity, a "patterned process" of events, an organism. Everything in the cosmos is sensitive to the presence of everything else. Everything "prehends" everything else. There is "an organic connection between things in terms of something like feeling". The Universe is a flux consisting of events and their inter-relations. But, "in the inseparable flux there is something that abides". The principle of "concretion" or together-ness of the whole Universe is called God. He is the "unity of vision seeking physical multiplicity", while "the world is the multiplicity of finites seeking a perfect unity".

EPISTEMOLOGY OF PHYSICS.—Recently some of the great physicists of the world have made a valuable contribution to philosophical evaluation of scientific knowledge, especially of physics in which human knowledge of nature has reached a very high level of exactitude and certainty. Two of them deserve special attention.

James Jean (b. 1877): Physics can never tell us what the events it studies are in reality. It does not describe nature itself, for it can never penetrate the universe beyond the impressions that reality makes upon our minds. "Our studies can never put us into contact with reality, and

its true meaning and nature must be for ever hidden from us".¹ So the object of scientific study can never be the realities of nature but only our own observations on nature. Physics tries to describe in mathematical terms, paint in mechanical pictures and cast in spatial and temporal models the pattern of events which controls the phenomena of our observation. We can, however, never be sure that these terms, pictures or models correspond to reality. At its best, physics can only correlate the phenomena without in the least knowing anything about the real properties of nature. Mathematical and physical knowledge must, by its very nature, represent things as happening in space and time. But "it has recently become clear that the ultimate processes of nature neither occur in, nor admit of representation in, space and time".² Modern physics does in fact suggest that "besides the matter and radiation which can be represented in space and time there must be other ingredients which cannot be so represented",³ nor do they come into contact with our senses. The world known to physics may thus at best be "only a cross-section of the world of reality", a mere surface of the deep-flowing stream below which we cannot see. The events on the surface, however, need not be regarded as illusory. The phenomena are as much a part of the real world as the underlying causes which produce them. All physical concepts, such as particles, waves, gravitation, momentum, energy, etc., by which we try to understand the activities of the world, are, however, nothing more than "mental constructs". They have no objective physical existence. The 'objective and material universe' of physics thus consists of little more than constructs of our own mind. "In this and other ways", according to Sir James Jeans, "modern physics has moved in the direction of mentalism".⁴ It is also no longer wedded to determinism. It is in fact according to him "not altogether antagonistic to an objective idealism like that of Hegel"⁵ and so, we think, not to the theosophical outlook also. In fact, Jeans has suggested that the universe must have come into being as an act of creation. Its ultimate nature is mental; it is a thought in the mind of a mathematical thinker. "It is subsisting in the mind of some eternal spirit".⁶

¹ James Jeans, *Physics and Philosophy*, p. 16.

² *Ibid.*, p. 175.

³ *Ibid.*, p. 193.

⁴ *Ibid.*, p. 216.

⁵ *Ibid.*, p. 204.

⁶ James Jeans, *The Mysterious Universe*, p. 137.

Arthur Eddington (b. 1882): 'Subjective Selectivism' is the name by which Eddington calls his epistemological theory of physics. According to him generalizations of physics do not hold good with regard to the ultimate reality or even to all that we know. They apply only to "subjectively selected knowledge", that is, to that part of our knowledge which is based on observation and which can be fitted into mathematical ways of thinking. In physical science we insist that its assertions must be verifiable by sensory observation and must be universal and invariable. Most often we are able to discover the "fundamental" laws and numerical constants of nature by purely subjective analysis, that is, by *a priori* reasoning. This shows that "the fundamental laws and constants of physics are wholly subjective, being the mark of the observer's sensory and intellectual equipment".¹ All knowledge of physics is, therefore, subjective. It concerns itself with the rational correlation of experience. By its methods we are "incapable of discovering fragments of absolute truth about an external world".² This is almost the same as what Kant thought. In fact Eddington admits that "Kant anticipated to a remarkable extent the ideas to which we are now being impelled by the modern developments of physics".³ Science, according to Eddington, does not deal with objective and absolute reality but with some abstracted aspects of it; these being merely symbols of the reality beyond our observational and mathematical knowledge, of which science knows nothing and can know nothing. This conclusion to which modern developments in physics lead, leaves room for other avenues to reality, such as the mystic intuition of the religious. Eddington, like Jeans, is an idealist. According to him, "All through the physical world runs that unknown content, which must surely be the stuff of our consciousness. Here is a hint of aspects deep within the world of physics, and yet unattainable by the methods of physics".⁴ It is here that Science and Theosophy meet.

CONTRIBUTION FROM INDIA.—S. Radhakrishnan (b. 1888): Although an Indian, Radhakrishnan is not to be left out of account in a survey of contemporary Western philosophy. His contribution to the current of Western thought is in no way small. He has enriched it by new concepts from Indian philosophy and has given it a new outlook which has been the rare privilege of India throughout the ages. He has bridged

¹ Arthur Eddington: *The Philosophy of Physical Science*, p. 104.

² *Ibid.*, p. 185.

³ *Ibid.*, p. 189.

⁴ Eddington, *Time, Space and Gravitation*, p. 201.

for ever the gulf between Eastern and Western thought. We shall note here five great contributions of his to the thought of the West from the treasures of Indian philosophy: First, he has pointed out and emphasized that the concept of the Absolute Reality is not to be confused with that of God. "While the Absolute is the total reality, God is the Absolute from the cosmic end, the consciousness that informs and sustains the world". Secondly, he has placed the doctrine of Reincarnation on a secure philosophical foundation. Thirdly, he has attempted a beautiful reconciliation between Reason and Intuition, which is characteristically Indian and quite new to the West. "Intuition is only the higher stage of intelligence, intelligence rid of its separatist and discursive tendencies . . . carries out intellectual conclusions to a deeper synthesis . . . It is a deeper experience which by supplementing our narrow intellectual vision, amplifies it". "Any sound rationalism will recognize the need for intuition". "Intuition is beyond reason, though not against reason. As it is the response of the whole man to reality, it involves the activity of reason also". Fourthly, he points out to the West that, to understand and fully know the Reality, a great *sādhana* or purification of life is the essential requisite. "To know better, we must become different. We can realize the potentialities of Spirit only by a process of moral asceticism which gradually shapes the soul into harmony with the invisible realities". Fifthly, he has given to the West a very clear idea of "mystic experience" in his famous Hibbert Lectures.

THE GENERAL TENDENCIES OF CONTEMPORARY WESTERN THOUGHT

We are now in a position to point out to the reader the general trends of present-day philosophy in order that it may be clear that it is coming nearer to the doctrines of Theosophy.

(1) It is nowadays admitted even by great scientists as well as by philosophers that science does not give us a complete picture of Reality. It deals with abstractions.

(2) Materialism is practically dead. Hardly any serious thinker now dares to explain all facts of experience in terms of matter and mechanical laws. It is now generally admitted that, in the course of evolution, there is an emergence of absolutely new qualities which cannot be resolved into or explained in terms of the primitive qualities with

which the process is supposed to start. Emergence, however, implies previous existence somewhere in some form.

(3) The doctrine of evolution is accepted on all hands. In the evolution of the world there are various hierarchical steps, stages or levels. There is also an immanent *nîsus* or urge in nature, not only to maintain the levels already reached but also to advance to still higher stages. This implies an inherent purpose which points to a conscious guidance. It is admitted that in organic life there is an integrating principle which cannot be resolved into the physico-chemical activities of the cells.

(4) The world of experience is not now regarded as limited to sense-perception. It includes all kinds of experience, religious, moral, æsthetic, etc. Mystic or religious experience is now being recognized as a new level of experience in which some new aspects of Reality are revealed. So also is the case with moral and æsthetic consciousness.

(5) There is a general tendency to regard the values—truth, goodness and beauty—not only as subjective ideas but as having reference to something objective corresponding to each of them.

(6) It is generally admitted that without admitting a Unity behind the subject and objects of knowledge, knowledge remains unintelligible.

(7) There is a growing distrust in the power of thought—mere intellectual thinking—to solve the mystery of existence. Intellect is to be supplemented by intuition or insight and spiritual experience of the Reality in order to understand it fully.

(8) The reality of change, plurality and imperfection have to be accepted and explained by all philosophy. The Universe is now conceived more as a process, a movement, a stream of events than as a static something. In it there is no rest. Man's life is also regarded as a continual process of perfection.

(9) Individual freedom, spontaneous activity, are now recognized as the very essence not only of man but even of lower and simpler entities.

(10) The survival of the soul (or personality) and its immortality are being admitted generally. There is a tendency to accept the theory of Reincarnation as the more satisfactory doctrine to explain a number of problems connected with the individual. This doctrine "clears up a number of problems which are otherwise inexplicable".¹

¹ Johnson, *The Great Problem*, p. 284.

It is needless to point out that all these tendencies of contemporary Western Philosophy are in a line with Theosophy. It is on these points that Theosophy and Philosophy meet.

A BIRD'S-EYE VIEW OF ANCIENT INDIAN PHILOSOPHY

Unlike the West, in India, science, religion and philosophy have never flourished in isolation from one another. Each has grown and developed by friendly criticism and co-operation from the others, with the consequence that there has never been a serious conflict among them, and each has been enriched by the contribution of others. Here every religion has a philosophical aspect, every science a religious sanction and philosophic start, and every philosophy a religious attitude and a practical bearing. Here no religion hopes to thrive unless it is rational and capable of bearing good practical results, no philosophy is accepted unless it satisfies religious and moral demands and is capable of being verified by experience, and no science is studied unless it promises to be conducive to the realization of the *summum bonum* of life.

In India, philosophy is more than a mere disinterested pursuit of knowledge of the Reality as a whole. It is a *darshana* or vision of the Reality. Being a *darshana* or view of the Reality, every philosopher views it from a certain stage or level which he occupies by virtue of his spiritual evolution. At every higher stage of spiritual evolution there is a more extensive and better vision of the Reality than at the lower. One vision (*darshana*) differs from another, not because the Reality as such is different, but because it is viewed from a different level, height or storey of the tower of spiritual evolution. As the same landscape presents different views from different heights or angles, so does the Reality to different philosophers who differ in their intellectual and intuitive capacities. This idea lies behind the Jaina doctrines of *anekānta-vāda* that the Reality has infinite aspects, and *naya-vāda* that every system of philosophy looks at the Reality only from a particular point of view and notices only certain aspects, while remaining blind to others. A philosopher should always remember that most of the statements about the Reality can only be relatively true (*syād-vāda*) and seldom absolutely so. It is in this manner that the various schools of Indian philosophy are studied in India.

In spite of much disagreement among the various schools of Indian philosophy, there are some very important *points of agreement*, which may be mentioned here :

(1) *The Theory of Karma and Rebirth* : All systems of Indian philosophy, except the Materialism of the Lokāyatas, agree in holding that every individual has to bear the good or bad consequences of his actions, either in this life or in lives to come after death. Death does not bring any individual to an end. Leaving the dead body, the soul of the individual goes to other invisible worlds, and having there undergone experiences in accordance with its past *karmas*, comes to this world in some suitable body. This is one of the principal doctrines of Theosophy also.

(2) *Respect for Authority* : Almost all systems of Indian philosophy have great respect for the statements of the "seers", or of the Vedas which are regarded by the orthodox systems of Indian philosophy as "revealed". The Buddhists and Jains regard the statements of the Founders of their religions with equal respect. In Theosophy also there is a great respect for the works and words of the great Teachers and Masters.

(3) *The Doctrine of Mukti* : The idea of liberation from the round of repeated births and deaths according to the law of Karma, is also a common feature of all schools of thought except that of the *chārvākas* (Materialists). They all hold that a state of existence is possible for the immortal soul in which it is free from all misery and sufferings of the world. In that state it remains in its pristine purity. Theosophy also holds such a view.

(4) *The Doctrine of the Soul* : All Indian systems of philosophy, except Materialism and Buddhism (in a way), believe in the existence of a permanent spiritual entity which exists in the physical body but is independent of the body. It is immortal, and is not affected by the birth, growth and death of the physical body. Buddhist philosophy does not admit the existence of an unchanging soul, but it believes in an ever-changing stream of personality which does not come to an end at the death of the body, but continues in a new body until it comes to rest in Nirvāṇa. The existence of the "soul" and its continuity after death are among the cardinal doctrines of Theosophy.

(5) *The Doctrine of Sādhana or Practical Realization* : All the principal systems of Indian philosophy hold that, in order to attain the state of perfection or freedom from the *sāmsara* (repeated experience of

birth and death in this physical world), one has to undergo a course of practical training which absolves one from all imperfections and attraction to the world. Theosophy also holds a similar view.

(6) *Belief in the Beginninglessness of the Worldly Career of the Soul*: We cannot logically determine how and when the individual happened to be entrapped in the world. The present life is the outcome of the previous, and that, of the still previous, and so on, *ad infinitum*. We can, however, terminate this beginningless chain by attaining final liberation from it. Theosophy agrees.

(7) *The Existence of Subtler and Supersensible Aspects of the world as well as of the individuals*, is also accepted by all Indian thinkers except the Materialists. It is one of the cardinal doctrines of Theosophy.¹

(8) *The Objectivity and Pseudo-Materiality of Mind* is a special feature of Indian philosophy, and is commonly accepted by a number of schools of Indian thought. There is hardly any Indian philosopher who identifies the Self (*ātman*) with the mind (*manas*). In Theosophy also the mind is not the Self.

(9) Almost all schools of Indian thought (except a later section of Buddhism) are *realistic*. That is, they believe in *the existence of the objective world as independent of the mind* through which it is revealed. The function of knowledge is not creation of the objects, but a revelation of them, according to most Indian thinkers. Theosophy also believes in the existence of an objective world independently of individual minds. Of course, according to Theosophy as well as the Vedānta, both the mind and the objective world are creations of God who is immanent in both.

THE DIFFERENT VIEWS OF THE REALITY ACCORDING TO THE DIFFERENT DARSHANAS

The Lokāyata Darshana (the Materialistic point-of-view) looks upon the world from a purely objective and commonsense point of view. It contends that only that which is revealed in sense-perception is real. The world consists of nothing but material things made of earth, water, air and fire. Man is no exception. When he dies he is reduced to the four elements. There is nothing like a soul, independent of the physical

¹ See Part II, Vol. I of this Series: diagrams 1, 2, 7 in "Chemistry", pp. 31, 33, 57; see also p. 99.

body. Consciousness is only a property which is generated by the combination of the elements in the form of the body.

The Vaisheshika Darshana takes a wider view of the reality. According to this system all the objects of knowledge fall under six categories (*padārthas*), namely, substance, attribute, action, genus, difference and inherence. There are nine different, independent, irreducible, eternal substances, *vis.*, the five Elements—earth, water, fire, air and ether—existing in atomic form, Time, Space, Minds and Selves. The world is a complex formation of all these substances. When the atoms of the five elements begin to combine there is the creation of the world, and when they disintegrate there is the dissolution of the world. Creation and dissolution of the world go on in regular cycles. There is no mention of God in this system as there is no need of Him for creation. Everything takes place according to the law of Karma.

The Nyāya System accepts the categories of the Vaisheshika, and adds one more to them, namely negation. It accepts its substances also, but among the souls it includes God, who is inferred to be existing as an efficient cause of creation. The God of this system is a soul (*ātman*) free from the law of Karma and rebirth. His wisdom, desire and effort are limitless. He is only an efficient cause of the world. He cannot create any of the substances which exist co-eternally with Him. He wills to create the complex objects of the world out of the pre-existing atoms when there is a time for the fructification of the *karmas* (acts) of individual souls, who are also co-eternal with God. Consciousness is an acquired attribute of the soul which is infinitely extensive in its dimension. It emerges in the soul when the latter comes in contact with the mind (*manas*) and body. At the time of cosmic rest and in the state of freedom from the life of *samsāra* (world), there remains no consciousness in the soul. This system makes a detailed analysis of the process of knowledge, and discusses the nature and validity of the various types of knowledge.

The Sāṃkhya System looks upon the world from a still higher and more critical point of view. It views all the world of objects and processes—both material and mental—as transformations of *Prakṛiti*, the One Primordial Substance, the Original Stuff which is constituted by a triad of fundamental attributes—*sattva*, *rajas* and *tamas* (which may be roughly translated as thought, movement and inertia)—of which all the attributes of the world are mere modifications. *Prakṛiti* is the potency

of everything that emerges in the course of evolution, and all the objects of the world constituted by the attributes are merely the potential becoming actual—transformations of *Prakriti*. The Sāmkhya further points out that consciousness is above all modification and change. It is something unique, *sui generis*, unaffected by the modifications of the mind. It is not something that comes and goes. It is steady like a lamp, illuminating all the activities of the objective world, simply witnessing them without taking any active part in them. By virtue of its mere presence all the objects of the world get illuminated. It is a mere subject divested of all mental modifications with which it usually seems to be identified. This is a false identification and lasts only as long as discrimination (*viveka*) does not dawn upon us. This consciousness is the soul (*Purusha*) of the individual. It is eternal and infinite in dimension. It is not extinguished even in deep sleep. Death does not bring an end to it. Every individual has got such a *Purusha* (soul) within him. There are as many souls as there are individuals. All the activities of *Prakriti* are purposive. They serve the purpose of either giving an enjoyment to the *Purusha* or of releasing the *Purusha* from the bondage. There is no necessity for postulating a Creator or Designer of the world in this scheme.

The Yoga System is merely a kind of applied Sāmkhya. It has devised practical ways of bringing about the experience of the true nature of the soul (*Purusha*). The ideal of Yoga is to attain a state of *samādhi* (trance or intense concentration) in which *Purusha* is experienced in its pristine purity and aloofness from mental modifications which belong to *Prakriti*. Writers on Yoga admit the existence of God as an eternally free *Purusha* who guides the Cosmic Process. They do not clearly indicate how He is related to *Prakriti* and *Purushas*.

Buddhism: According to Buddhism, as according to Bergson, there is nothing static either in the self or the world outside the self. Everything in the Universe is in perpetual flux, is a momentary complex—*sarvam kṣaṇikam*. Consciousness is as much a momentary complex as any material object is. Self is only a name given to a series of changing complexes of mental events. There is nothing in all our experience which may be called a simple, permanent unity or self (*ātman*). The ceaseless stream of personality, however, does not come to an end at the time of bodily death. It continues in the form of another personality for which a new physical body has been prepared by the cosmic forces under the control of

the law of Karma. It reincarnates in body after body in accordance with its longings and actions. To bring the ever-changing streams of consciousness which continue to flow in the *samsāra* (cycle of births and deaths) to an end is the *summum bonum* of life. The most effective means to bring about this end (*nirvāṇa*) is the denial of the will to live and of the desire to enjoy worldly or heavenly pleasures. This is brought about by living a life of renunciation and service.

Jainism: As already mentioned, the Jaina thinkers have rightly pointed out that all systems of philosophy emphasize rather unduly some aspects of the Universe and neglect others. The Reality having an infinite number of aspects or attributes (*ananta-dharmātmakameva tattvam*), it is unwise to regard it either as static or as in flux. The Reality must be described as "that in which something endures, something comes into being and something perishes (*utpāda-vyaya-dhrauvyātmakam sat*). Knowledge, according to Jainism, is of five kinds, and any philosophy based on any one kind of knowledge must necessarily be incomplete and defective. They are: (1) *Mati*—ordinary knowledge derived through the commonly recognized means of sense-perception and inference; (2) *Shruti*—knowledge conveyed by others through intelligent symbols; (3) *Avadhi*—knowledge acquired by some supernormal means, like clairvoyance and clairaudience; (4) *Manah-paryāya*—knowledge of other minds gained by means of telepathy; and (5) *Kevala-jñāna*—knowledge of the perfected souls who have acquired omniscience, and can see the Universe as a whole and in the true perspective. The Jaina theory of knowledge and truth is in very close affinity with that of Theosophy.

A REVIEW OF THE PRECEDING DARSHANAS IN THE LIGHT OF THE VEDANTA

The Vedānta looks at the Universe from the highest point of view. Its view of the Reality is in very close affinity with that of Theosophy. The main contention of the Vedāntist against the Vaisheshika view of the world is that the creative and formative activity of nature which shows signs of order, purpose and intelligence, cannot be explained merely on the hypothesis of the atoms of five kinds existing in time and space. Mere discrete and independently real atoms cannot by themselves combine into the various objects we see around us. The hypothesis of an external God as an efficient cause or designer of the world supplied by the Naiyayikas

does not also stand the test of reason according to the Vedāntist. How can an external God control the activities of the realities which are absolutely independent of Him, and which have their own peculiar nature and free will (as in the case of the *ātman*s)? How can the Will of God and the Law of Karma, which function independently of each other, work in such a harmony that God wills to create the world only when the actions of the selves are ripe for fructification after the rest and inactivity of *pralaya*? One must be subservient to the other in order that efficient administration may be carried on.

Against the Sāmkhya view the Vedānta says :

(1) The ultimate dualism of *Prakriti* and *Purusha* is not a fact of experience, nor does it stand the test of reason. Subject and object are distinguishable but not separable. Their mutual relation of knowledge implies a deeper spiritual reality underlying both of them. They must be regarded as finite expressions of this deeper reality which cannot be characterized as either.

(2) The world-process cannot be fully explained by the concept of *Prakriti* which is supposed to be "blind" (unconscious). The order and purposiveness immanent in the cosmic process point to an intelligent, wise and omniscient God guiding and controlling the course of *Prakriti* to definite ends.

(3) The ultimate relation between *Prakriti* and *Purushas*, and the first urge in the balanced and quiet *Prakriti* to create, are unintelligible. *Prakriti* being in a balanced state—to which it is reduced by the dissolution of the previous creation according to the Sāmkhya view—*Purushas* being inactive by nature, how is the balance of *Prakriti* overthrown? The starting of the creative activity by *Prakriti* further presupposes the forgetfulness on the part of *Purushas* of their nature and their false identification with *Prakriti*. But how can this occur in the case of a pure, aloof and disinterested consciousness? How can, again, the blind *Prakriti* evolve for the purpose of alien *Purushas*, and particularly to disentangle them from its own clutches?

(4) The ultimate plurality of *Purushas* is untenable. If the *Purusha* is nothing but consciousness, pure, simple and divested of all change, activity and emotion—these being the functions of the mind which is a product of *Prakriti*—what then remains in a *Purusha* to distinguish it from another *Purusha*? There must, therefore, ultimately exist only one *Purusha*, (if it is pure Consciousness divested of all distinctions).

The main contentions of the 'Vedānta against Buddhism are : (1) Change alone is not what experience reveals. Without an unchanging element in consciousness there cannot be an apprehension of change. The witness of change must be outside change, for the elements involved in change cannot be aware of each other as their being is confined to the moment in which they endure.

(2) We cannot say that A has changed into B unless there be some underlying Substance continuing unchanged in both of them. So, mere non-being cannot be the stuff of the world. Underlying the perpetual change of names and forms there must be a Reality, inexpressible, of course, in terms of them.

(3) Grouping of elements, whether material or mental, however momentary they may be, also cannot be intelligible without presupposing a uniting principle bringing about the momentary union of discrete elements.

(4) The *Nirvāṇa* for which a Buddhist aspires cannot be mere cessation of individuality, for nobody can aspire to cease to exist. All of us long to be free from suffering, limitation and imperfection. In *Nirvāṇa* there can be no cessation of our being, but only of our individuality and imperfection. It is the realization of the deepest reality which is Being, Consciousness and Bliss in one.

THE PRINCIPAL TEACHINGS OF THE ADVAITA VEDĀNTA

The Ultimate Reality, according to Advaita Vedānta, which is the profoundest system of Indian philosophy, is *Brahman*. It is that from which the world originates, that in which the world exists, and that in which it is dissolved. It is immanent in all beings and exists even beyond them. It exists everywhere and at all times. Time and Space are within It. It is infinite and Absolute. It cannot be described in any terms known to us, because all our terms are meant to describe the finite forms. All that we can say is that It is the Ultimate Foundation, Source and Goal of all that there is, and hence It must be richer in Its potency than anything in the world. The rise and fall of all the names and forms in the Absolute Brahman is the eternal play going on without any ulterior motive on account of Its fullness and perfection. Nothing is lost to It, and nothing is added to It, by the rise or fall of the world-process within It.

The world as a whole and in all its parts shows signs of purposiveness, intelligence and organization and, therefore, presupposes a Creator and Governor (*Īshvara*). He creates the world out of Himself, and governs it justly in accordance with the Law of Karma which is the expression of His own Will. This Creator is God, a Cosmic Form of the Absolute Brahman. He is immanent in the Cosmos as its very soul and is omniscient and omnipotent. To us He is the highest Ideal of Perfection, but in relation to the Absolute, He is only an expression of Its unlimited and infinite Potency (*Shakti*). The God of the Universe, however, is not some other entity than Brahman. He is Brahman limited by Its own Creative Power—which brings forth the world of plurality from within Itself. The world comes out of this Power, called *Māyā*, as a tree comes out of its seed. At the time of the Cosmic Rest (*Pralaya*) the seed of the world lies dormant and untraceable in the form of a mere potency of the Absolute.

Within the Absolute Brahman there go on countless waves of evolution and involution, although the Absolute as such does not undergo any change, loss or gain. Every world-process has its own Logos or Creator. For the purpose of carrying out the work of creation, preservation and destruction of His own world-process, He assumes three different names and forms, namely, *Brahmā*, *Vishṇu* and *Rudra*. The Cosmos which is the objective aspect, or the body of the Lord, has as many aspects, parts, functions, organs, principles, sheaths or planes as are found to be present in the personality of the individual. There is a thorough-going correspondence between the Microcosm and the Macrocosm (*yat pinde tat Brahmāṇde*). The Cosmos is an individual (organism) on an extensive scale. The relation between God and individuals is also a very interesting one according to the Vedānta. At every stage of manifestation or at every level of experience (except the deepest, experienced in the *Turiya* state), the individual is a part of God. God and individuals are related as the Whole and its parts, the Organism and its organs. In the deepest level of experience—the *Nirvikalpa Samādhi*—however, this relation is transcended. Nothing but Unity, complete Identity, is experienced in that state. God and soul both exist there as united in the Conscious Blissful Being—Absolute Brahman, which is the ultimate Self of all.

The Law of Karma, which is the law of perfect justice, rules the manifested Cosmos without any exception. As individuals, we reap only

what we sow. The individual undergoes repeated births and deaths—reincarnating from one physical body to another—in accordance with his desires and *karmas*—until, having grown discriminative and tired of this process, a sort of divine home-sickness overtakes him. He then tries to understand the meaning of this *samsāra* and to know his real and permanent nature, and takes to a Path which will enable him to realize his true Self which is nothing short of the Perfect and Eternal Blissful Brahman. Having fully reinstated himself in that Experience, he ceases to be an individual with selfish desires and purposes, and therefore comes out of the pale of the Law of Karma and of the cycle of births and deaths. He then lives a life of freedom and spontaneous service to humanity as long as his mortal coil lasts, and after the death of the physical body merges in the Absolute Brahman as a river flows into the ocean, losing its name and form, but never ceasing to be.

It is needless to say that there is hardly any difference between the outlooks of the Vedānta and Theosophy.

SOME IDEAS OF INDIAN PHILOSOPHY WHICH WESTERN PHILOSOPHY NEEDS

Before we close this brief survey of Indian Philosophy it may be pointed out that although the basic ideas of Indian philosophy were formulated long long ago, they are not objects of mere historical interest. They are still alive and not only govern the thought and life of a large population of the East but have also begun to invade Western thought. Now when the barriers between the East and the West have almost disappeared, there is no reason why Indian and Western philosophies should not unite and bring forth a better progeny. Here are some basic ideas of Indian philosophy which may well be incorporated in the present-day thought of the West.

(1) *Yoga or Practical Realization of the Philosophical Outlook*: We should *live* in accordance with our intellectual convictions, otherwise there is no use of philosophy in life. Moreover, we cannot know the Reality fully well unless we live a life of purity and thereby have an intuition of the Reality. No one can have a vision of higher principles of life who is interested in the lower things, or lives a life of uncontrolled passions. Moral and psychological fitness is the first requisite of a philosopher.

(2) *The Fourfold Being of Man*: Man exists in four states, namely, Waking, Dream, Dreamless Sleep and *Turiya* (the fourth). Only a careful and systematic study of our experience in these four states can give us a correct notion of ourselves. A view of life based on the study of man in the waking state alone is bound to be fragmentary and therefore unsatisfactory. Western thinkers have yet to learn this elementary truth.

(3) *Thorough-going Correspondence of Principles in Man and Nature*: Man is undoubtedly a product of nature. How can there be any principle, aspect or quality in man which is not already potentially present in nature? The product, effect, or part can never be greater or richer than the source, cause or whole. So whatever exists in the Microcosm (*pinda*) must exist in the Macrocosm (*Brahmāṇḍa*).¹

(4) *The Law of Karma*: If the individuals are free and responsible agents, and if the Universe is governed by inexorable laws, as many a thinker would admit, there is no reason why every individual should not reap what he sows, in this life and in the life hereafter, in case there is survival after death. The Law of Karma makes us responsible for all that we are. There is nothing irrational in it.

(5) *The Doctrine of Reincarnation*: If there is a Law of Karma and if personality survives after death, then there is every possibility of Reincarnation. This doctrine explains many a fact which is inexplicable in any other way. It solves many a mystery which no other theory does. This has been admitted even by some western writers. To quote one of them: "Of all conceivable solutions of the Cosmic Riddle, this theory presents the fewest difficulties of acceptance . . . Reincarnation explains much which heredity fails to elucidate".²

(6) *Avatāras and Rishis*: According to modern science, genius is a freak of nature. Neither Heredity nor Environment is able to explain it. But in every age and in every line, extraordinarily great heroes, saints and teachers are born. How to explain this fact? Indian thinkers take them as more highly evolved personalities *descending down* (*avatāra*) from some higher worlds or planes to this earth of ours for the purpose of advancing the evolution of humanity to higher states, of giving new truths to us, or of setting an example of a higher life for us.

¹ See also monographs on "From Microcosm and Macrocosm," and "Man and the Universe" (Vol. I) and "Yoga" (this Vol.)—ED.

² Ralph Shirley, *Problem of Rebirth*, pp. 7, 9.

(7) *Possibility of Attainment of Perfection* : If the world is spiritual in nature, if every individual is free and responsible for his own status in the world, if the progress achieved by the individual is not undone by death, and if now and then teachers and guides come down from higher worlds for our guidance, it is not inconceivable that every individual is capable of attaining the highest possible perfection in the course of time. There is no doubt that there is a deep desire in every heart to be perfect.

(8) *God as a Limited form of the Absolute* : The Power that creates, guides, controls and dissolves the Cosmos is called God. According to Indian philosophy (especially the Vedānta School), this Power is not the Highest and the Ultimate Reality. It is only a limited Form of the Absolute Reality, meant for the purpose of creating, preserving and breaking a Cosmos. In the Absolute Being, which is in and above all its limited manifestations, countless such Gods rise and fall every moment. They have their birth, life and death. Every Cosmos is a limited and temporary product of the eternal playful activity going on within the Absolute, but in no way affecting the Absolute, which as such is above all disturbance, change or decay. We cannot describe the Absolute Reality, for all our terms are relative. Very few western thinkers (F. H. Bradley is one of them) have risen to this idea of the Absolute.

CONCLUSION—COMMON CONCEPTS OF THEOSOPHY AND PHILOSOPHY

We have taken the reader through the vast field of recent and contemporary thought of the young West and of the ancient philosophy of the hoary East (India). He must have noticed how similarly great minds think all over the world and at all times, and how remarkably the best and the deepest philosophical thought of the East as well as of the West, of the past as well as of the present, agrees with the fundamental doctrines of Theosophy. Almost all the typical concepts evolved in the contemporary thought of the West, *e.g.*, those of the Absolute, God, Whole, Organism, Evolution, Design, Purpose, Change, Experience, Intuition, Relativity, Self-realization, Value, Spirit, Polarity of Subject and Object, Immortality, Survival, Reincarnation, Supersensible Knowledge, and Ultimate Unity of the Universe are met with in

theosophical literature. They become clearer and are better understood when one studies Theosophy.

In theosophical teachings we also find all that is great in Indian wisdom. The great ideas of Indian philosophy, for instance, Mystic Experience, Law of Karma, Reincarnation, Subtler and Finer aspects of Nature and Man, Correspondence between the Microcosm and the Macrocosm, Primordial Root of all objects, Objectivity of the Mind and its processes, the Absolute, God as a limited manifestation of the Absolute, repeated Creation and Dissolution of the Cosmos, Yoga or the Practical Method of accelerating the evolution of the individual, Identity of the Individual with the Divine, Liberation, etc. are all found in their remarkable identity in Theosophy.

On the other hand, it may also be safely said that there is hardly any doctrine of Theosophy which may be regarded as philosophically absurd. There are indeed some ideas of Theosophy which are unknown to philosophy, and which cannot be established through the instruments of knowledge on which philosophy is usually based, but that does not make them invalid. In future, when philosophy recognizes other and perhaps higher forms of knowledge, there may come a time when they too may find a place in philosophy. From a comparative study of Science, Philosophy and Theosophy, the writer feels inclined to state that there is nothing irrational in the doctrines of Theosophy, that the tendency of the present scientific and philosophic thought is towards a world-view very similar to that of Theosophy, and that, whatever the source of the teachings of Theosophy, they offer us a more comprehensive, coherent, systematic, precise, logically satisfactory and practically ennobling view of life than do most of the systems of eastern or western philosophy known to the writer. It is an honest and frank confession of one who has never been a "theosophist" in the ordinary and technical sense of the term.

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MODERN SCIENCE AND THE HIGHER SELF¹

BY ANNIE BESANT

THE putting together of the two phrases—"Modern Science" on the one side, and the "Higher Self" on the other—may strike some of you as strange and even as incongruous; for the ideas of Modern Science and of the Higher Self are so far removed from each other in the general mind that to bring them together as though they were closely related must seem to be unusual and grotesque. And yet I think I shall be able to show you as we go on, that these two things, the most modern and the most ancient, the thought of the West working by way of continuous experiment, and the thought of the East working by seeking the Higher Consciousness and recording its testimony, that these two are in our own days brought closely into touch with each other, so that they may aid and strengthen each other, may be found as servants in a common cause, and not as opposing and incongruous ideas. I want to show you, in the course of this evening's lecture, that there is in Modern Science a distinct recognition of the Higher Self, that there is an agreement between

Eastern and
Western Science

Eastern and Western science, though conflicting with each other in their methods, that there is a mass of evidence compiled by western scientific men, which can be cited as showing the recognition by Science of the Higher Self, of the existence of a Jivatma, a living Spirit, a living intelligence in man, and that the Spirit finds an ever imperfect instrument for expressing itself in the body of man. I want to show you how the face of Modern Science today is

¹ This Lecture was delivered in different parts of India in 1904 by Annie Besant. She has been undoubtedly the greatest and best exponent of Theosophy, which is the embodiment of Ancient Wisdom in modern garb. The arguments brought forward in this article are so sound and scientific even in the light of the present developments of science that they appear as fresh and cogent today as when they were delivered many years ago. They are sure to appeal to the educated men and women of the present day and help to give a spiritual bias to their thought.—ED.

turned in a different direction from that in which it was turned some 20 or 30 years ago,¹ I want to show you that there is a growing idea in the West, that man in the waking consciousness is but a small fragment of the real man, that man transcends his body, that man is greater than his waking mind and consciousness, that there is evidence in plenty, daily forthcoming from most unexpected quarters, to show that human consciousness is far larger and fuller than the consciousness expressed through the physical brain. This idea of a larger consciousness, larger than the normal waking consciousness in man, the consciousness hitherto recognised in modern psychology, is one that has not only been suggested but is now beginning to be recognised by Modern Science in the West. Such is then the reason for putting these two phrases together "Modern Science" and the "Higher Self".

Now, I ought to define what I mean by the "Higher Self". I am not using the phrase in the strictly technical sense which you find in Theosophical literature, that is to say, the Jivatma in man. I am using it for the whole expression of that Jivatma above the physical. I am using it for everything which transcends the brain consciousness, which finds the brain too coarse and dense an instrument for its expression. I am using it, in short, to imply what generally goes under the term "larger consciousness". If we can show definitely that experimental science has recognised human consciousness to be stronger, more energetic, more lively than the consciousness working in the physical brain, if we can prove the existence of yet higher realms, we shall enter on a path which leads to the highest invisible worlds. We climb step by step and see the larger consciousness unfolding itself more and more, stretching over an immense expanse, till at last we reach that to which men in every clime have always aspired, till the spiritual aspirations of man are vindicated. Such is the promise of infinite expansion which lies in the domain of an enquiry into the consciousness of man. The particular branch of Modern Science which thus comes into touch with the Ancient Science is that of psychology. Psychology in its modern form, climbing from below by way of experiment comes into touch with the ancient psychology of the East; and this is a science of immemorial antiquity, whereas modern psychology is an infant science in the West.

¹ Close of the nineteenth century.—ED.

Not that the West had no psychology; in the Middle Ages and in the centuries that went before them there was a psychology, but that psychology was repudiated in modern days. So that if you go back some thirty or some five and thirty years¹, you will find it distinctly stated by the representative European thinkers that no psychology could be regarded as sane which was not based on the science of physiology.

The method of introspection, of the observation of one's own mental processes, was entirely discarded in modern thought. **Psycho-physiology** The method of studying the mental processes of others by inference was equally challenged and doubted. It was said, and there was some truth in the saying, that the moment you began to study your own mental process, that moment it changed by the very fact of your observation; and it was argued also that if you tried to study the mental process of others, you could only do it by inference and not by direct observation. It is necessary, it was said by modern thinkers, first, to study the brain, the nervous system and mechanism in man whereby thought is expressed. Thus arose the science which is called psycho-physiology, a science in which the nervous system and the brain, regarded physiologically, were studied, analysed, and measured, and it was considered impossible to understand thought without the knowledge of thought's mechanism, and without a knowledge of the process of the changes in that mechanism. It was considered that along this road of experiment better results would be obtained than would be obtained by other methods, and as science became more and more materialistic, as it reached the point at which Professor Tyndall made his famous statement that we were to look in matter for the promise and potency of every form of life, it was natural, if not inevitable, that men should begin to study thought by the study of its mechanism, of its apparatus, rather than by the way of the direct observation of its processes. As the method of experiment justified itself more and more by most interesting results, it became regarded as the only method which was worth the consideration of the thoughtful, of those untainted by superstition, hence the birth of what may be called a new science, the science of psychology based on physiological experiments, a science which it was thought would confirm the statement that thought was the product of the brain, was the outcome really of the nervous mechanism in man.

¹ Close of the nineteenth century.—Ed.

So far were men inclined to go in making rash statements, that it was deliberately laid down that thought was produced by the brain. You had such a well-known, such a famous physiologist as the German Carl Vogt, declaring that the brain produced thought as the liver produced bile. That, perhaps, was the most extreme statement of the school of thought represented by many of the German thinkers. The very fact that such a statement could be made showed the line of thinking which Modern Science was following.

Now directly in opposition to that stood the immemorial psychology of the East. That was founded on the idea that man in his essence was not a body but a living Spirit, was not a mere form but an eternal Intelligence. Eastern psychology was founded on the notion that this living Intelligence, this entity, Jiva or Jivatma, was the primary thing to be understood, that instead of considering thought to be the product of a certain arrangement of matter, this certain arrangement of matter was to be regarded as the result of thought. Instead of considering that life, consciousness, intelligence were the results of a mechanism, of an apparatus gradually built up by nature under the working of blind and unconscious laws, Eastern psychology declared that the primary fact was the fact of consciousness and that matter was but its garment, its instrument, the means of its expression, arranged and guided by intelligence, and only useful and interesting as expressing that intelligence in the various worlds of the universe. That is put strongly and clearly in the *Chhandogyopanishat* and I quote this because we shall find in the latest science a strange and startling endorsement of the ancient thought. It is declared in that Upanishat that Atma exists, and that the bodies and the senses are all the results of the will of Atma. You may remember how the passage runs: "The eyes are for the perceiving of that Being who dwelleth within the eyes". It was Atma who desired to hear and to smell and to think; hence arose the organs of the senses and the mind. Everywhere Atma is the primary fact; the organs, the bodies, come into form in order that the will of the consciousness may be expressed. Thus great, then, is the opposition between this Western thought of some sixty or seventy years ago and the ancient thought of the East, the one beginning with the body out of which the consciousness grows, the other beginning with the consciousness by the activity of which gradually the bodies were formed. Keep this antithesis in mind as we follow out the lines of our study.

Come then to Modern Science, starting with the idea that thought must be understood by the clear understanding of its mechanism which many considered its producer. Great scientists began to study carefully the nervous system, and they studied it with a marvellous patience, they studied it with marvellous success; they measured the rate at which the impressions made on the surface of the body travelled to the nerve centres and there appeared as mental perceptions. They measured the rate at which the thought could travel along the nervous fibres. They measured the delicacy of perception related to the various parts of the mechanism. They reduced more and more all thought-processes to processes of chemistry, of electricity, to be measured by the balances, to be weighed, to be analysed. They met with great success: they threw wonderful light on the mechanism of the nervous apparatus. They went, in their researches, in their efforts to map out the nervous system, even into crime, the crime of vivisection. Thousands of miserable animals had their skulls taken off, their brains laid bare, and electrical shocks applied to the various parts of the brain, in order that by these diabolical methods some of the secrets of consciousness might be wrenched from Nature.

But as they carried on their experiments, certain results appeared which seemed to challenge the starting point from which they had come. They were dealing with thought as the product of the nervous system, and necessarily therefore, they thought as the nervous system increased in perfection, the thought increased in complexity, in accuracy, in dependability. The constitution of the brain, the relation of the parts of the brain to one another, the functions that belonged to different portions of the brain, all these were mapped out, analysed, explained. But as they began to study, or rather as they carried on the study, they found that there were certain results of consciousness that did not fit into the theory with which they had started. They found that there were certain results of consciousness which took place when the brain was not in its normal state, in its full activity, and that these could not be ignored, that no theory of consciousness could be true that did not explain these as well.

First the attention was turned to what were called the results of dream consciousness. The waking consciousness had been carefully examined. But what of the consciousness that went on when the man was asleep? The phenomena of sleep must also be explained. Interesting experiments began on

The Study of the
Nervous System

Results do not
fit into Theory

Consciousness in
Sleep and Dream

the dreaming consciousness, on the functioning of consciousness when the body was asleep. Experiments were made with the usual care, with the usual ingenuity, with the usual patience. We have no time to deal in detail with them. Many of them you can find for yourself with a large number of details in the famous book of Du Prel, *The Philosophy of Mysticism*. It seems sufficient for the moment to give you one example which covers a large class of experiments. They began by taking a sleeping man, touching his body at some point, and then waking him at the moment, and asking him: "What have you dreamed?" Very often there was no dream, no result, but in a large number of cases the man reported a dream. I will take one illustration. The back at the neck was touched. The man was asked: "What have you dreamed?" He said: "I dreamed that I committed a murder; I was brought to trial for the murder; I dreamed the whole of the trial. The speeches of the barristers, the summing-up of the judge: I waited for the verdict of the jury; I was pronounced guilty; I was doomed to death; I was taken away to the condemned cell; I remained there for so many days; I was led to the place of execution and, as the knife of the guillotine descended on me, I felt it touch my neck, and I awoke". Many such experiments were tried and put on record. What was the result that came out of them? The stimulus to the dream came from the touch, as the touch on the back of the neck had suggested the idea of death by guillotine. How can we explain all that went on in the dream consciousness after the touch and before the awakening? How did the dream consciousness pass through a long series of events in order to explain the touch, and how was it that the events which followed the touch seemed to precede and to explain it? That was the problem.

After long discussion and cogitation the suggestion was made that

Consciousness Working in a Finer Medium	consciousness in the dream state was working in some medium other than the dense matter of the cells of the brain. The speed with which the nervous impulse travelled from any part of the body to the brain had been measured and was known. But here was a long series of phenomena in consciousness which came between the touch on the body and the knowledge of that touch in the brain. There must therefore be some finer medium in which consciousness was working, through which the knowledge had gone more rapidly than through the nervous matter, so that there was time to build up the story to account for the touch before the consciousness of the brain knew
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it had been made on the body. The mind then, in sleep, was not thinking by the dense brain, but by some subtler medium which answers more rapidly to the vibrations of consciousness, just as two men might start from the same point and one running quickly might run to the goal fast, turn back, and might meet the other long before he had covered a quarter of the distance; so consciousness in the subtler medium could travel faster, make the story to explain, return and meet the consciousness in the physical brain, and give the story as the explanation of the touch that had been felt outside. Such was a suggestion made to explain the rapidity of action in the dream consciousness.

But much more than that was wanted to make a satisfactory theory. And science said: it is not enough to have dreams examined in this way. Let us try to throw a man into the dream-state and examine him while he is in it instead of waking him out of it. Let us try to come into touch with him while the dream is going on. Then began the long series of experiments spoken of as hypnotic, where a man was thrown into a trance and thus a prolonged dream-state was attained, a state produced by and under the control of the operator. In the hypnotic trance, as you must know, the body is reduced to the lowest point of vitality. The eye cannot see, the ear cannot hear; lift up the eye-lids and flash an electric light into the eye, there is no contraction of the pupil; the heart well-nigh ceases to beat, the lungs have no perceptible action; only by the most delicate apparatus can it be shown that the heart is not entirely still, that the lungs have not entirely ceased to contract and to expand. Now what would be the state of the brain under these conditions according to the theory that thought is produced by the brain? The brain is reduced to the condition of coma, lethargy. It cannot work; it is badly supplied with blood, the blood it

Hypnotic
Experiments

obtains is surcharged with carbonic acid and waste products, for it has not been supplied with sufficient oxygen. From such a brain, according to the modern theory, no thought ought to be able to proceed. But what were the startling facts that answered the enquirers, when they questioned the consciousness under these abnormal conditions? Where there should have been lethargy there was increased rapidity, where there should have been stupor there was very much increased intelligence, where there should have been apparent death, there was life in overflowing measure, and the whole of the mental faculties was stronger and more vivid.

Take the memory of man in the waking state. Question him about his childhood, he will have forgotten many events, they have vanished into the past. Throw the man into a trance, question him then about his childhood, and memory gives up the stores that apparently had been lost, and the most trivial incidents are recalled. Take a man, read to him in his waking moments a page of a book that he has not before heard, and ask him to repeat it; he will stumble over a sentence or two, he is unable to recite it. Throw the same man into the trance, read the page to him then, and he will repeat it word by word even when the language is to him unknown. Memory then in the dream or trance state is immensely

Further
Experiments

increased in its range and power. Take the perceptive faculties. As I said, the eye would not answer to the flash of the electric light, but the faculty for perceiving the material world of which the eye is the organ finds expression in the trance state such as in its waking state it cannot exert. The man in the trance will be able to see through a barrier that blocks the waking vision, and tell you what is happening on the other side of a closed door, or what is within the body, tell you not only what is happening on the other side of an obstacle but what is happening hundreds of miles away. These are not the dreams of the orientals, of the theosophists. I am confining myself to cases where experiments have been put on record, where men who do not believe in the superphysical, were confronted by facts they found it impossible to explain. I have myself seen experiments of this kind in the days before I was a theosophist. These proved to demonstration that opaque bodies were not obstacles to the vision of the man plunged into the hypnotic trance, and this is now admitted by all students of hypnotism. Memory and perception then are increased in power when the brain is stupefied. So I might take you through one faculty of the mind after another and show you that in every case consciousness is stronger, more vivid, more active, when its physical mechanism is paralysed.

Out of all these experiments there arose again the question: What then is the relation between consciousness and the brain? It was established that with paralysis of the brain consciousness becomes more active than it was before.

The result of these experiments on the condition of mental faculties was a proof that whatever the dream consciousness of man might be, it was far wider in extent, far more powerful, than the same consciousness working through

the physical brain. Thus gradually way was made for the recognition of the fact, well-known to the eastern psychologists, that the waking consciousness is only a part, an imperfect and fragmentary expression, of the total consciousness of man.

The modern psychologists meanwhile were proceeding on a new line of investigation, and they began to study what are called the abnormal phenomena of consciousness, not only the normal and the commonplace but the abnormal and the exceptional, and at first the study along these lines seemed to carry most of the thinkers directly against the psychology of the East. Study in one school of psychology came to what seemed a terrible conclusion. It was the school of Lombroso in Italy. He declared, and many others followed him, that the visions of the prophets, of the saints, of the seers, all their testimony to the existence of superphysical worlds, were the products of disordered brains, of diseased or over-strained nervous apparatus. He went further, and he declared that the manifestation known as genius was closely allied to insanity, that the brain of the genius and the brain of the madman were akin, until the phrase "genius is allied to madness", became the stock axiom of that school. This appeared to be the final death-blow dealt by materialism to the hope of humanity nourished by the grandest inspirations that had come to men through the geniuses, the saints, the prophets, the seers, the religious teachers of the world. Was all this truly but the result of disordered intelligence? Was all religion but the grand dream of diseased brains and nerves? Was religion really a nervous disease, are all people who see and hear, where other people are blind and deaf, neuropaths? That became the terrible question set rolling by this psychological school. At first there was silence, caused by the very shock of the question. Men were so taken aback that they knew not how to answer them, knew not how to argue. Gradually, however, there came from the ranks of thoughtful men a challenge. Granted that this is true that you have discovered, granted that these brains through which the visions of religion, the revelations of religion, have come, are abnormal, is it after all so important, so vital a matter? May it not be that as the higher worlds come into touch with man, they may well be able to affect only the most delicate brains, and in that very touch they may throw the delicate mechanism slightly out of gear? Is it not possible that the subtle vibrations of the higher worlds to which the human

Abnormal
Phenomena of
Consciousness

"Genius is allied to
Madness"

brain is unaccustomed yet to respond, may in some individual differing from the standard of ordinary evolution, find an answer, and the higher world may speak through these abnormal brains to men? The question

Their Value to
Humanity

of importance to humanity is not whether the physical brain of the genius is allied in its mechanism to the physical brain of the madman, but whether what comes through the brain of a madman and the brain of a genius are equally important to humanity. If we receive through the disordered brain of a mad man, a jangle of useless disconnected ideas and dreams, that result is worthless and we set it aside. But if through the brain of the genius, of the religious teacher, through the brain of the saint, come forth the highest inspirations, the loftiest ideas that have raised mankind above the brute and the savage, shall we cast them aside as well? We judge the results not by the mechanism through which we have received them, but by their value to humanity, and no matter what the mechanism of the brain may have been there remains the thought that has been given to the world.

Everything of which humanity is most proud, all its sublimest hopes and aspirations, the most beautiful imaginings of poetry, the transcendental flights of metaphysics, and the sublimest conceptions of art, are all products of neuropaths, of abnormal brains. When men tell us that the great religious teachers are neuropaths, that Buddha, Christ, S. Francis, are neuropaths, then we are inclined to cast our lot with the abnormal few, rather than with the normal many. We know what they were. They were men who saw far more and knew far more than we; what matters it whether we call their brains normal or abnormal? In these men's consciousness is a ray of the Divine splendour; as Browning says:

Through such souls alone

God, stooping, shows sufficient of His Light

For us in the dark to rise by.

And if in those cases the brain changes from a normal to an abnormal state, then humanity must ever remain thankful to abnormality.

That is the first answer which may be made to this statement of Lombroso, and you find a man like Dr. Maudsley, the famous doctor, asking whether there is any law that nature shall use only for her purposes what we call the perfect brains? May it not be that for her higher

Normal and
Abnormal Brains

performances she needs brains which are different from the ordinary, the normal brains of man? For, take the normal brain that is the product of evolution, the result of the past; that brain is fitted for the ordinary affairs of life, it is fitted for the calculations of the market-place, for the observation of material things, for the work of the world, for the carrying on of the ordinary affairs of life; brought to its present state by the practice of such thinking it is the best machinery for such work. But when you come to deal with higher thought, with abstract speculation, when you come to deal with religious ideas and with the possibilities of higher worlds, that brain is the most unfit of instruments; it is not delicately organised enough for the subtler vibrations of the higher worlds. For just as you may take a watch delicately wrought and by that watch you may measure small intervals of time which you could not measure by a clumsier mechanism, so it is with the different brains of men. The normal brain is the commonplace brain; the normal brain is the average brain. It has no promise for the future; it is but the product of the past. But the abnormal brain, that which can answer to the higher vibrations, the brain which, if you will, you may call by the insulting name of "morbid", that is the brain which stands in the front of evolution, which is the promise of the future, and shows us what man shall be in the generations yet to come.

As the struggle went on another answer came. When in times of unusual strain and unusual excitement, the brain answers to the higher vibrations, then it is very likely that nervous disease will accompany the answer. It is not always the brain of the genius to which strange experiences occur. They occur to people of all types; the average man and woman have their experiences. When a person has been rapt in ecstasy of prayer; or is fasting, and the body is weakened or is under great stress of excitement, the brain will certainly be affected far more easily than under normal conditions, and it will be able to register finer vibrations more easily than the so-called healthy brain. Take a very common illustration. You have a violin or a vina. You find that you can get from the string of your instrument a certain note, but you want a higher note; what do you do? You tighten the string. Just so with the human brain. It does not answer to the higher notes of life in its ordinary state; you must tighten the string by intense concentration or devotion, and then the brain will answer. But

Registering Finer
Vibrations

in the tightening there is danger ; in the tightening there is the possibility of breakage ; and so in the normal brain tightened to respond to the stress of the subtler vibrations, there is the danger of nervous disturbance, there is the danger of unbalancing the mechanism.

The Process
of Yoga

How can that be met ? We look to the science of the East, to its old psychology, and it gives us the answer—it is the only science that knows the answer, and this answer is strengthened by a modern discovery touching the mechanism of the brain. What is the process of Yoga ? It is a process by which gradually, by physical, by mental training, the man develops a higher consciousness, and enables that higher consciousness to express itself in the physical body. Now every one of you who knows anything of Yoga, knows perfectly that in Yoga there is a physical training, purification of the body, purification of the brain, which precedes the practice of any of the higher forms. You know that it has always been told that if a man would practice Yoga he must become an ascetic in his life. That he must give up liquor and the grosser articles of diet, that he must purify the body, and then purify the mind. You know that only as that is being done, can the mental Yoga be effectually performed, and then as the body is becoming purer day by day, consciousness develops, its higher powers show themselves through the purified brain without disease, without overstrain, without any injurious nervous or morbid results. Eastern psychology recognises the danger of nervous disturbance, and enables the necessary sensitiveness to be obtained without the overstraining of the physical instrument.

The Mechanism
of the Brain

But I said that a late discovery in Modern Science with regard to the brain had justified the process. What is the discovery ? That the brain cells in which thought is carried on develop, and increase in size and in complexity by the process of thought ; that as a man thinks, his brain cells grow ; they send out processes which anastomose, join one to another, and thus make a very complicated mechanism by which higher thought can be expressed, that the whole process of the expression of thought depends on this growth in the cells of the brain, and that as you think you are really making your brain, you are creating the mechanism by which hereafter a higher thought may be expressed. The latest anatomy of the West has laid down this, that these cells grow under the direct impulses of thought, and that as you think you prepare the brain for better and higher thought ; as the thought

acts on the nervous cells, the nervous cells become more complicated, intercommunicate more fully, are more apt for the processes of thought.

The Yoga practice of concentration, of steadying the mind by fixing the thought, makes the brain cells grow, and thus creates an instrument adaptable for higher thinking in the future. As you carry on your meditation you are building fresh mechanism in the brain ; as you carry on concentration, you are creating the apparatus for higher performances. Thus as purification of the body, of the brain, of the mind, goes on in Yoga, you are building up the brain, making it able to come into touch with a higher world, without losing its balance, without losing its sanity and its strength. There lies the scientific justification of Yoga from the latest investigations of the West. What then does the East tell us as the result of Yoga ? It tells us that man is a consciousness expressing his powers through the body which he moulds to his own purpose, that man's consciousness in the brain is far less than his consciousness out of the brain ; that man uses the brain as an instrument on the physical plane, but is not limited by it, is not confined by it. That old theory of the ancient Sages is now being promulgated in the West by such men as Sir Oliver Lodge, who declares that the investigation of hypnotism, the study of consciousness and the study of abnormal states of consciousness, prove that human consciousness is larger than the consciousness in the brain, and that there is much more of us outside the body than is shown by the working of the brain. That is the last word on consciousness from the West, and it is identical with the testimony of the East.

Do you see now why I put together Modern Science and the Higher Self ? The Higher Self is the consciousness beyond the physical, the larger, wider, greater consciousness which is our real Self, the Self of which the consciousness in the brain is only the faintest of reflections. This body of ours is only a house in which we dwell for our physical work ; we hold the key of the body ; we should put it in the lock by Yoga, and try and release the imprisoned consciousness. We are greater than what we appear to be ; we are formed in the divine image ; we live not in this world only but also in other worlds ; our consciousness outstretches the physical. In this planet of mud our foot is planted, but our heads touch the heavens ; they are bathed in the light of the spiritual world far above, in the world unseen, bathed in the light of our God. We

may trust the consciousness and the testimony of the Saints, the Prophets, the Seers, and the Teachers of humanity. They told us what they knew, that which we may also know for ourselves. They were divine, showing

Claim Your
Birthright

Their divinity to the worlds. We are none the less divine, although our divinity is veiled. Let us claim our birthright, to know as They know. These great ones of the past, these Saints and Teachers of humanity, They are the promise of what we shall be in the future, and the heights They have touched in ages past, we also will attain in days to come. Every one of us is a "divine fragment", every one of us an eternal Spirit, every one of us a deific life, striving to attain through matter to consciousness of our own divinity. That is the teaching of all faiths, that is the fundamental principle of life, of religion, of nature: and Modern Science is finding that even physical nature is not intelligible without the understanding of the higher world, without the recognition of larger possibilities.

PSYCHICAL RESEARCH

By D. H. PRINS

LOOKING for a domain of modern scientific thought where Theosophy and Science meet, one sets foot upon the ground covered by what since the last quarter of the nineteenth century in English-speaking countries has become known as **Psychical Research**.

Theosophical thinkers have a predilection for the study of the so-called "occult" phenomena and they claim that some occult theories handed down through the ages from olden times till now may turn out to be of great value as a working hypothesis in the field of modern science, especially in that of **Psychical Research**.

It is not easy to say exactly what has to be understood by "occult" or "psychic" phenomena, nor to draw the boundary-line which marks off the field of **Psychical Research** from other fields of study. Perhaps the best way of giving a general idea of what is enclosed by that boundary-line is to enumerate the diverse types of "psychic" phenomena.

It has been customary to make a division between mental and physical phenomena. Thought-transference from brain to brain without any physical contact; extra-sensory perception of past or distant events, or so called clairvoyance; dreams and hallucinations of a prophetic nature; the communications from mediums which are said to be due to incorporeal agencies and which are often claimed to contain evidence of the survival of the human personality after the death of the body; these are some types of mental phenomena. A common characteristic of the facts falling under this heading is easily given. In each of the cases mentioned above, objective knowledge comes to a percipient without any sensory stimulation of the well-known kind.

The physical phenomena seem*in one respect or another apparent exceptions of accepted physical law. The enigmatical materializations, the spontaneous coming into existence of new physical forms and the equally enigmatical dematerializations, the solution of those forms into

Some Examples
of Physical
Phenomena

nothingness; telekinesis, the moving of physical objects without any one touching them; levitation, a special form of telekinesis in a vertical direction, the word being only used when a human body is lifted; hauntings; raps and psychic lights, sounds or lights without a known physical cause; these are various examples of physical phenomena.

It should be borne in mind that in these two enumerations nothing has yet been said about the question, whether these phenomena are real facts or merely supposed ones.

Ever since the foundation of The Theosophical Society in 1875 Theosophists have been paying attention to the study of occult phenomena. H. P. Blavatsky, the first great modern exponent of Theosophy, expected a good deal

Warning against
Fraud

from such a study. In more than one respect she may be considered as one of the precursors of modern scientific research in this field. She knew the possibilities of fraud and self-deception. In letters dating from 1876 she wrote: "What we [theosophists] want is to kill fraud"¹. . . "How very careful must we be in accepting phenomena and revelations purporting to come from spirits"²; but she revolted against those who branded magic and occult science with the name of imposture: "Allowing a large discount for clever fraud, what remains is quite serious enough to demand the careful scrutiny of science"³. She believed

Occult Phenomena
are no Miracles

in the future science of occult phenomena: "Spiritualism. . . will become a science and a thing of mathematical certitude, instead of being regarded only as the crazy delusion of epileptic monomaniacs"⁴; but she knew it would be a long way from 1875 to that future. Understanding that the co-operation of many scientists is absolutely necessary for progress in that direction, she complained: "We have but very very few scholars at our command"⁵. She objected to the

¹ E. R. Corson, *Some Unpublished Letters of H. P. Blavatsky*, pp. 178-179 (London 1929).

² E. R. Corson, *Some Unpublished Letters of H. P. Blavatsky*, p. 164, (London, 1929).

³ H. P. Blavatsky, *Isis Unveiled*, I, p. 40 (New York, 1877).

⁴ *The Complete Works of H. P. Blavatsky*, p. 54, edited by Trevor Barker, (London, 1933).

⁵ E. R. Corson, etc., p 166,

unscientific attitude, which identified occult phenomena with miracles: "There is no miracle. Everything that happens is the result of law . . . but . . . there may be laws . . . unknown to science¹". It is the task of the future science of occult phenomena to discover the laws which govern those facts, better to rediscover them; for Mme. Blavatsky stated that there has always been an Occult Science handed down from generation to generation known only to few people, fragments of which can be found in the dark and often enigmatical writings of ancient philosophers and occultists. This occult tradition is the source of her own theories relating to psychic phenomena.

Her first attempt to promote the future science of occult facts was her associating with the spiritualistic movement in America. Coming to the New World at a time when a great many people visited the places where mediums produced their real or false phenomena, she entered into communication with those circles hoping to meet among the visitors those inclined to give ear to her ideas. Denouncing deceiving mediums she nevertheless advocated the reality of occult phenomena; at the same time she disputed the then current spiritualistic theory which held that nearly all the psychic phenomena were derived from the agency of disembodied men, the "spirits". As early as 1879 she stated: "We can never know how much of the mediumistic phenomena we *must* attribute to the disembodied, until it is settled how much *can* be done by the embodied, human soul"²—a maxim which up to the present day has been the leading principle for scientific research in this field of knowledge.

In modern Psychical Research it is still a disputed point whether the spirit-theory is necessary for the interpretation of certain psychic phenomena or not. As soon as scientists began to study those phenomena, they put forward, in place of the spiritualistic hypothesis, an animistic one, which looks for the cause of occult phenomena in the subconscious regions of living men instead of in the supposed consciousness of the dead. For half a century a great many earnest students have sought for an unimpeachable proof of survival of life after death, and even those who adhere unreservedly to the spiritualistic theory as the only possible one (for the interpretation of some of the facts at least) grant that a definite proof is very difficult. So, Sir Oliver Lodge³ in a

¹ *Isis Unveiled*, II, p. 587.

² *The Theosophist*, I, p. 7.

³ *Proceedings of the Society for Psychical Research*, Vol. XXXVIII, pp. 481-516 (June 1929).

paper *On the asserted difficulty of the spiritualistic hypothesis from a scientific point of view* declares: "Basing my conclusions on experience I am absolutely convinced not only of survival but of demonstrated survival"; but he adds: "It is difficult to discriminate between the activity of discarnate personalities and those of the incarnate"; and even says: "The verification of this hypothesis must depend largely on our philosophic view".

The facts referred to by Sir Oliver are well known: A medium personates a deceased entity. He behaves as the deceased used to behave, he speaks as the latter was wont to do. What he says testifies to a far-reaching knowledge of the inner and outer life of the person who, according to the spiritualistic theory, is said to be present. In some exceptional cases such manifestations make a deep impression on every person present and only he who is well-informed of the results of modern Psychology and Psychical Research can, undisturbed by that impression, weigh exactly the evidence for and against the spiritualistic interpretation of those phenomena, for only he can know "how much can be done by the embodied human soul and"—so Mme. Blavatsky went on in the paper quoted above—"how much by the blind but active powers at work within those regions which are yet unexplored by science".¹ Some of these powers have been discovered since those words were written.

First of all the fact that a medium knows a good many details about the life of the deceased and about his intercourse with his relatives and friends, can be explained very well without the help of the hypothesis of survival. The literature of Psychical Research abounds with records regarding extra-sensory perception. There are persons gifted with the faculty of knowing particulars about the past life, the character and the future of other people without having had the opportunity of being informed of them by normal observations. The reality of such a faculty can no longer be disputed.²

Secondly, there is the possibility of the dissociation of a personality. It sometimes occurs that one and the same individual shows to his surroundings two or more faces so different, that they can be said to belong to different personalities that live their own lives in that individual independent of each other. A very impressive case of such dissociation was studied by the American

¹ E. R. Corson, etc., p. 164.

² cf. Oxy *La connaissance supranormale* (Paris, 1923) (Engl. transl. *Supernormal Faculties in Man*) or J. B. Rhine, *Extra-Sensory Perception* (Boston, 1933).

psychologist Morton Prince.¹ So if a medium personates a deceased person this does not necessarily mean that the deceased uses the body of the medium, it may mean something else.

Thirdly, modern psychology throws a bright light upon the faculties of the unconscious, among other things upon its dramatizing power. Every one can convince himself of the possibilities of this faculty by studying his own dreams.

Those facts enable us to formulate more exactly the so-called animistic hypothesis. The medium personating a deceased person is gifted with the faculty of extra-sensory perception (why should we make a fundamental difference between supernormal knowledge of life and the character of living men and that of the dead?). The knowledge which he receives through channels unknown to most of us, and in point of fact also unknown to himself, is dramatized by the unconscious and gives rise to a dissociation of the medium's consciousness and to a personification of him whose course of life is the object of the perception.

There are some rare facts which prove this hypothesis to be sound because they cannot be explained spiritualistically. Mme. Blavatsky in a letter recently reprinted in *The Theosophist*² tells of a personal experience which is very suggestive. In her years of girlhood as a medium she often gave information by automatic writing about the life of a lady and her relatives. This lady told the audience that she was dead, and used the medium's body to make her communications. A good many of those communications could be verified and they appeared to be exactly true—with one exception. The lady still lived and what was told about her death was a mere fancy. Mme. Blavatsky gives an animistic interpretation of these facts.³ A similar case is recorded by Mr. Soal in the Proceedings of the S.P.R.⁴

Of course, observations of this kind do not prove the spiritualistic hypothesis to be false. Other facts remain, very strongly suggesting the idea of survival. Nevertheless, the theory of Mme. Blavatsky that nearly all the so-called "spirits" are no spirits at all, and that their communications are due

¹ *The Dissociation of a Personality* (Boston, 1905).

² Vol. LIV, p. 422.

³ *The Theosophist*, LIV, p. 422.

⁴ Vol. XXXV, p. 561.

to still unknown faculties of man, has found a corroboration in modern scientific research.

This corroboration is very important, it goes to the root of our subject. For one of the most fundamental ideas of Supernormal Powers in Man Ancient Occultism and its revival in Modern Theosophy is that supernormal powers exist in every human being.

The study of psychic phenomena is therefore first of all the study of man and of his latent, mostly still undiscovered, possibilities to which Mme. Blavatsky alluded in the lines quoted above.

However, such phenomena are the result of an interaction of man and nature and therefore the study of the occult is also the study of unknown forces in nature. Just as there is in man the region of the unconscious, just as there are in some men, at least, those supernormal faculties of clairvoyance, so in nature—occult tradition says—there is a region hitherto hardly touched by scientific research, an invisible world, surrounding us all without being known by us, except perhaps by those few who say they have to a certain degree consciously developed occult powers.

A summary of the theosophical theories about man and nature may precede our attempt to compare in detail those theories and the results of Psychical Research.

Theosophy distinguishes between the real man, his true Self, and what man seems to be; between his soul and his body. Soul is Immortal, Body is Mortal The true Self is rooted in the eternal and absolute Unity of Life; the outer man is mortal and ever-changing.

A statement like this should not be presented as an object of belief, it should be the result of reflection and inner experience. Let me try to make some suggestions which may point out a way to a conviction based on such a foundation.

I see myself living in a world that surrounds me. If I describe my situation in this way, I already distinguish roughly between that which I am and that which I am not. But there is perhaps no word in our language more equivocal than this word "I", so familiar to all of us. And so long as its significance is not exactly defined, my distinction of the "I" and the "not I" is of no great importance.¹

¹ See also the monograph on "Man and the Universe" (The Self and the Not-Self), Vol. I of this Series, which elaborates this point.—Ed.

There are manifold relations between myself and my surroundings, one of them, however, is presupposed in every other one. It is the relation "to be conscious of". I am conscious of the paper on which I write, of my room, of the scenery I see through my window as I look up from my work. I may be conscious of everything in the world wherein I live.

Now anything I may be conscious of is fundamentally different from the "I" that is conscious of it. The whole outer world belongs to the "not I". But I am or may be conscious of my body too, and of my feelings, my emotions, my thoughts. I willingly admit there are very many moments in my life when I identify myself so much with my thoughts or with my feelings that it is as if I am those thoughts or those feelings. But it happens sometimes that those thoughts and feelings of mine live at some distance from me, so that I am able to control them to a certain extent. Sometimes when I am thinking over an important question, the thoughts come and go at my command, I order them, I link them together and so gradually arises the thought-building I wish to raise. In this thought-activity of mine I experience something of the autonomy of my true self with respect to my inner life. Reflecting along such lines the conclusion urges itself upon me, that the whole of what I am accustomed to call my inner life also belongs to the "not I". Determining what the true "I" is, I have to separate it in my reflection not only from the world outside me but also from my bodily existence and from my psychic life. The "I" is conscious of all that and therefore differs essentially from the whole of the "not I". It will be obvious that the "I", so defined, rises above the individual, it can no longer be considered as something

personal. One of the most acute Theosophical thinkers, Bhagavan Das, writes on this subject: "Let it be perfectly clear to us that our consciousness is the one witness to . . . the only possible substratum of all that we regard as real . . . By eliminating the common factor 'our' from both sides of the equation, the proposition stands . . . that consciousness is the only basis or support of the world. For how can we distinguish between 'our' consciousness and 'another's' consciousness, between 'our' world and 'another's' world? That another has a consciousness, that another has a world, that there is another at all, is still only 'our' consciousness. And as this holds true for every one, . . . does it not follow

Consciousness is the
only Basis and Sup-
port of the World

that all these 'every ones' are only**One*, that all these 'our' consciousnesses are only one Universal Consciousness?"¹

The next link in the chain of ideas I am following here is the fundamental identity of the objective (outer) world and the subjective (inner) one. Everything I do changes the physical world around me and may therefore be observed by everyone else, it is part of the objective world. But my thoughts and feelings are—so long as they do not give birth to action, so long as no gesture betrays them—for myself alone, subjective. This, at least, is the generally accepted idea—the objective world and the subjective are essentially different. A very illuminating consequence of this opinion is that we are responsible for our actions, but not, at least not in the same measure, for what we think or desire, provided that those thoughts and desires do not lead to action.²

Now in the scheme of thought outlined above, both the physical and psychical lie on the same side of the boundary-line between the "I" and the "not-I". Both belong to the ever-changing world of phenomena, they are not fundamentally different. There is a psychical outer world just as there is a physical outer world. Of course this is a revolutionary statement but I hope the reader will see it for the present as a possibility, the value of which may be tested in dealing with the results of Psychical Research. This proposition is not new. Here, too, Theosophy only brings back an old occult tradition, undoubtedly the result of the occult experience of former generations, a tradition which is still living in the East.³

The psychical world is material, for it is a phenomenal world with an objective structure of its own. It is not a mere metaphor to speak of "psychic matter". The laws of psychic matter may differ greatly from the laws of physical matter, so greatly that one may be inclined to reject the word matter in this connection. Nevertheless I insist on using this word, only to lay stress upon the fundamental identity of the physical and the psychical worlds.

* *The Science of Peace*, pp. 23-24 (London and Benares, 1904).

¹ I may refer the readers for instance to the books of W. Y. Evans-Wentz, M.A., D. Litt., D.Sc. 1. *The Tibetan Book of the Dead* (Oxford, 1927), 2. *Tibet's Great Yogi Milarepa* (1928), *Tibetan Yoga and Secret Doctrine* (1935).

² Modern Theosophical literature following Indian and Tibetan tradition (cf. *The Tibetan Book of the Dead*, pp. 100-101) discriminates between an astral body and a mental one, a distinction which in this connection is not important.

Man lives in the physical world by means of his body. How does he come into contact with his psychical surround-

During Sleep or
after Death Man
Lives in His
psychic Body

ings? The answer occult tradition gives lies on the surface. He does so by means of a "psychical" body, sometimes called the astral body, the radiant vehicle of the soul—a word used by the last of the Neoplatonists, Damas-

cus,¹ and since that time well-known in occult literature. The idea that man does not only live by means of a physical body but also by means of another subtler one includes the possibility that he uses the latter apart from the former. It may happen while man is still living; according to the occult theory, during sleep, and in some exceptional cases known in the literature of *Psychical Research* as "psychic excursion". It may happen after death, the true Self having left the dying body remains living in his psychic body. Another consequence of this idea is the existence of accessory perceptive faculties.

The average man has no experience whatsoever of his psychical

A Westerner is not
Self-conscious of
the psychical World

surroundings nor does he know anything about a psychical body. Perhaps I should rather say, with more precision, he does not interpret his inner experiences in terms of an outer psychical world and

his possible relations to it. That is no wonder. The conscious life of the Westerner is so wholly absorbed by the exigencies of the physical world that even his inner life, his thoughts and feelings, his emotions and desires are intimately connected with it. So he has no psychic life of his own. Everything he may be in the psychic realm of life is subordinate to what he is in physical life. He has not yet discovered the possibility of a psychic life independent of what may be signified by life in the physical world. With respect to the psychical world man has not yet gained self-consciousness. That is the explanation of his ignoring its existence.

Yet modern Psychology is going to restore the idea of the autonomy of the psyche. The re-discovery of the unconscious

The Re-discovery
of the Unconscious

by Freud and his school was a first step on the way to that goal. One of the former pupils of Freud, Jung,

made the next step by forming the concept of the collective unconscious.

¹ cf. Myers, *Human Personality and its Survival of Bodily Death*, p. 232. (London, 1903)

² *Wirklichkeit der Seele* (Zürich, 1934) p. 14. It should be borne in mind that the collective unconscious of Jung is, however, not at all the same as what I call the outer psychical world.

In his latest book *The Reality of the Soul*, Jung says about the collective unconscious: "It is objective, it has a life by itself, it is founded in itself".¹ It would be very interesting to discuss this subject more in detail but it lies outside the limits of the present paper.

However, one remarkable attempt to treat psychological problems in a way which is in itself already a corroboration of the idea of an outer psychical world may be mentioned here. Dr. Wilhelm Haas, a German psychologist, published in 1921 a book entitled *The World of Psychical Things*.¹ To illustrate the ideas contained in that work I quote the following lines: "The psychic world is a world of things and of relations between things. It exists objectively, it is not dependent on its being observed by perceiving men. Just as we are living and going about in the physical world, in so far as we are physical beings, so we are living and going about in the psychical world as psychical beings. And exactly as we are observing in the physical world now ourselves and now other things, so we are perceiving in the psychical world now the psychical life of our own, now other psychical things".² "Fundamentally man lives in the physical and in the psychical world in the same way . . . he has a physical and a psychical body, the latter being . . . not the endless plurality of psychical things that may come within the sphere of our perceptivity, but those psychical things that permanently form part of our inner life".³

Returning to Psychical Research, we find a great many data enabling us to test the value of the occult theories we are dealing with. For all the phenomena which have been studied in this branch of science have one common characteristic: their psychological aspect. Even what we called in our opening lines the physical phenomena show this aspect. They can be directed either by the will of the medium or by the intentions of some one else.

Among the occult facts, that of thought-transference—perception of the thoughts of another—has been the least disputed from the very beginnings of scientific research in this field. At first sight it resembles some well-known physical facts, witness its popular name: mental radio.

¹ *Die psychische Dingwelt* (Bonn, 1921),

² *Ibid.*, p. 42.

³ *Ibid.*, p. 93 (abridged and freely translated).

This has undoubtedly made its acceptance easier. On the other hand, the reality of clairvoyance¹—perception of an objective thing or event without the aid of the known senses—was doubted till some years ago. The possibility of such extra-sensory perception could not so easily be understood. Moreover it is rather difficult to prove its reality. For such a proof can only be given by excluding telepathy. To realize this difficulty one has only to consider that if a person gifted with supernormal faculties shows ability, for instance, to read a letter shut up in an opaque sealed cover, it may be that he perceives the letter itself notwithstanding its opaque cover, it may also be that he perceives the writer's thoughts.

Experiments with the Polish engineer Ossowiecki² have made the reality of clairvoyance very acceptable. Conclusive were the experiments of Rhine.³ The attempt to make telepathy the one and only hypothesis to explain the fact of extra-sensory perception was thus proved to be vain. Rhine now even required experimental tests for telepathy excluding the possibility of clairvoyance, the idea being suggested that thought-transference may be a special case of clairvoyance. He succeeded in demonstrating by a series of ingenious experiments that pure telepathy was as real a fact as pure clairvoyance.⁴

The discovery of the possibility of thought-transference means the end of the current theory that thoughts and feelings, desires and emotions, in short everything that may form part of man's inner life is merely subjective. The idea that thoughts affect the surroundings of the person who thinks them, an absurdity for the intellectuals of former generations, can no longer be questioned. My thoughts can be perceived in one way or another by some one else. Therefore the conception that my thoughts only exist during the time I am thinking them is wrong. Their life lasts much longer. Perhaps, when I think again the same thought after some time, this repeated thinking may be called a second observation of the same psychical thing, just as when I am reading what I wrote down some minutes ago, the conceptions that arise in me are the result of a second

¹ The monograph on "Archæology" by G. Nevil Drinkwater, Vol. I, pp. 121-124, this series, may be read with advantage on this subject.—Ed.

² Geley, *L'ectoplasmie et la Clairvoyance*, Ch. I (Paris, 1924). A summary may be found in Richet, *Thirty Years of Psychical Research*.

³ cf. J. B. Rhine, *Extra-Sensory Perception*.

⁴ *Ibid.*, Ch. III.

Telepathy and
Clairvoyance,
Successful
Experiments in—

Thoughts are
Things and Can be
Seen by Another

observation of a thing that has an existence of its own, independent of my perceiving it or not. Such considerations lead inevitably to the idea of an outer psychical world no longer as a result of pure speculation but as the outcome of an attempt to account for ascertained facts.

Of course in using the expression "outer psychical world" one should be on one's guard against rash generalizations and easy analogies. The laws of this psychical world can only be found by experiments and careful observations. Man, who in the 19th century could but think in terms of matter, force and vibration, has conceived an explanation of telepathy which is the perfect image of the physical radiation-theory. Its application to the facts, however, meets with great difficulties. This may be mentioned here¹, firstly because in theosophical books the idea of thought-transference by vibrations is, in my opinion, over-emphasized, and secondly as a warning against untimely conclusions.

A very remarkable corroboration of theosophical theories on occult phenomena by Psychical Research is the use made by some authoritative writers on this subject of the hypothesis of the astral body. To begin with some facts—

Dr. Roux reports in the "Revue Metapsychique"² on his experiments with a clairvoyant lady, Mme. Morel. Repeatedly he gave her a letter of a friend of his, Dr. Moutier, who was travelling. Mme. Morel gave a full description of the situation in which his friend was at that moment. She "saw" his surroundings; she "saw" even particulars which Dr. Moutier may have observed but which he surely was not conscious of; nay, it occurred also that she perceived something in his neighbourhood that he himself had not yet seen, and in those cases she knew that Dr. Moutier had not yet observed that part of his surroundings. These facts make Dr. Roux discuss with many reservations the possibility of travelling in the astral body after having left the physical body, because Mme. Morel, also describing what she went through, spoke of removal through space with lightning speed and then blending her consciousness with the other's. There may be some evidence for the theory of the astral body in

¹ For a full discussion of this question cf. Driesch, *Parapsychologie* (München, 1932) pp. 104-110. (Compare, *Extra-Sensory Perception*, Ch. XV.)

² 1935, pp. 1-16.

experiments like these, but they are not conclusive. However, there are other facts to be considered in this connection.

In "Phantasms of the Living"¹ it is reported how a certain

Experience of
Astral Travelling Mr. Beard endeavoured to make himself known in a house at some distance from where he himself was at the moment. First he saw the parlour, later in the evening a bedroom. He wrote down what he had witnessed and the following morning he went to the house in question. He was received by a lady he hardly knew, who began telling him, how she had seen him the night before in the parlour and the bedroom. The notes he made could be wholly verified. In such cases there is some one experiencing that he is at some distance from his physical body and another perceiving there an apparition of the former. The last circumstance supports the suggestion of astral travelling made above, provided that besides the possibility of psychic excursion we accept that the astral body, normally invisible, in a still unknown way can be made visible.

It also occurs that apparitions are perceived by more than one person. In a paper published in the Proceedings of the Apparition and its
Objective Reality S.P.R.² are brought together many facts of that kind. Making an attempt to examine whether such an apparition is objective or not, stating that "its objective reality is to be measured in the degree it is capable of being shared by other people and the degrees to which it enters into working-relations with the rest of one's experiences", the authors conclude: Apparitions . . . transcend spatial separation even of hundreds of miles. . . . Yet they may produce effects on the senses of touch and hearing at the same time as that of sight and they have frequently been seen by two or more observers, whose reports of their appearances, facial expressions, position, movements and other details correspond so closely as to indicate that the experience was shared to a degree approaching that of ordinary sense-experience.

"Cases like this", so wrote Myers,³ "do of course apparently support the primitive doctrine of the spirit's actual wandering in space". He transformed this doctrine into a scientific hypothesis which comes very

¹ Gurney, Myers and Podmore, *Phantasms of the Living* (London 1886) I, pp. 106-108, cf. for similar cases, pp. 108-109.

² H. Hart and E. B. Hart, "Visions and apparitions collectively and reciprocally perceived", *Proc. S. P. R.*, Vol. XLI, p. 205.

³ *Human Personality and its Survival of Bodily Death*, II, p. 194.

near to the theory of the astral body. Myers suggested: "that a phantasmogenetic centre is actually established in the percipient's surroundings, that some movement bearing some relation to space . . . is actually accomplished".¹ More recently other well-known scientific workers in this field have been discussing this hypothesis seriously.²

So it is no wonder that Tenhaeff, a well-known lecturer on Psychical Research in a Netherland University states about the theory of the astral body: "Although in my opinion it cannot yet be said that the existence of the astral body has already been proved, I think it very probable that Psychical Research will give the proof in the future".³

Among the cases collected in the paper quoted above there are also apparitions of the dead. Some are possibly apparitions of the dying and thus apparitions of the living, certainly not all of them. The authors lay stress upon the fact that no fundamental distinction between apparitions of the living and those of the dead can be found. Both kinds of facts bear the same characteristics. This fundamental identity makes very acceptable

Evidence for
Survival

the supposition that man survives his bodily death, using after it his astral body to come into contact with his (psychical) surroundings. I perfectly agree with

Tenhaeff's conclusion: "the best evidence for survival lies in the excursion-phenomena".⁴ The most convincing proof of identity of a deceased person who is said to manifest himself by means of a medium may be questioned by referring to the possibility of clairvoyance as has been shown in the first part of this paper.

The occult theory that also during sleep man leaves his body has not yet been corroborated to the same degree. Yet the study of dreams by Dr. I. van Eeden, a Netherland physician, published in the Proceedings of the S. P. R.⁵ gives much important information. The author kept a diary of his dreams from 1896 till 1912. He made notes of 500 dreams, 352 of which were of a particular kind: "the lucid dreams". The dream-state he experienced in such cases is characterized as "a more or less complete reintegration in a psychical non-spatial mode of existence. This reintegration may go so far as to effect full recollection

¹ *Human Personality and its Survival of Bodily Death*, I, p. 247.

² cf. Driesch, *Parapsychologie*, pp. 117-121.

³ Tenhaeff, *Het Spiritisme* (Spiritualism) Den Haag, 1936, p. 137.

⁴ *Ibid.*, p. 244.

⁵ Vol. XXVI, p. 441.

of day-life, reflection and voluntary action on reflection".¹ Obviously the author has a right to write regarding these lucid dreams: "The theories of dream-life brought forward up to this day . . . are unable to account for all the phenomena".² Only the conception of sleep, which occult tradition has, can account for them, for according to it sleeping means leaving one's physical body and living either unconsciously or more or less consciously in the outer psychical world by means of the astral body. Very remarkable in this connection are the successful attempts van Eeden made in his dreams to awaken his sleeping body with the intention to perceive as exactly as possible what he went through in returning to his physical body. "It is like the feeling of slipping from one body into another and there is distinctly a double recollection of the two bodies. . . . It is so indubitable that it leads almost unavoidably to the conception of a dream-body".³

The rendering of the theosophical teachings concerning the occult phenomena would remain very incomplete, if I did not say another word about the supernormal faculties. Psychical Research has made us familiar with such faculties as clairvoyance, prophesying, etc. From their very nature these are faculties the use of which can be controlled by normal observations; otherwise it would be nearly impossible to produce evidence that supernormal perceptions are not fictitious.

Now Ancient Occultism knows of other supernormal faculties. It speaks of the possibility of directly perceiving the unseen world around us, of living consciously in that psychical world. Some modern theosophists claim to have realized this possibility. C. W. Leadbeater, for instance, stated in his books over and over again⁴ that he had developed astral sight, that everything he writes about the invisible part of the universe is the outcome of experiences of his own. Of course, for every one else such an assertion is not in any way a proof, however convinced the person in question may be that his experiences are real ones and not mere hallucinations.

¹ Vol. XXVI, p. 441.

² *Ibid.*, p. 432. This was written in 1913. In 1936 a well-known German psychologist G. R. Heyer wrote in a paper entitled "Intercourse with our selves" (*Eranos Jahrbuch* 1935, Zürich, 1936, p. 169): "The dream as we recollect it, is not the same as what we are going through when we are dreaming it. Is it not acceptable to suppose, that soul-life during the sleep, at least partly, enacts in a world which is wholly shut out from our consciousness" and the author suggests the possibility that many occult phenomena could be accounted for on the supposition of such a soul-world.

³ Vol. XXVI, p. 447.

⁴ cf. for instance *The Other Side of Death* (2d ed., Adyar, 1928) Ch. V.

Yet this problem is not wholly unsolvable. Introspection by those who have some occult experiences, dream-studies like those of Dr. van Eeden, may in the long run bring together much indirect evidence, the final proof of course coming only to those who have developed such super-normal faculties and who can by using them separate for themselves the true from the false in the manifold communications of the occultists.

In this connection besides the dream-studies referred to above, the research work of Muldoon should be mentioned. In a noteworthy book, *The Projection of the Astral Body*,¹ the author reports about his spontaneous psychic excursions and his intentional ones. It contains many a corroboration of the data published by Mme. Blavatsky, Leadbeater, Steiner and other contemporary occultists.

The possibility of direct knowledge of the unseen world is a subject which begins to attract the attention of those who study the problems of Psychical Research. Dr. Tenhaeff discusses this possibility and states that the attempts to realize it "should not all be looked upon as absurdities".²

In a short treatise it is impossible to discuss fully all the problems which arise in comparing Ancient Occultism and Modern Theosophy with Psychical Research. There are still different problems not touched upon here, and others but partly dealt with. However, sufficient evidence has been collected for the following conclusion :

The development of scientific research into occult phenomena distinctly shows an approach to some fundamental ideas of Ancient Occultism and Modern Theosophy. In the future this approach can be expected to become still clearer.

Of course, it will turn out that much which came to us by occult tradition does not mean anything for modern science. It is possible that some of the conclusions in the researches of modern occultists may prove to be incorrect.³ That does not alter the fact that many a corroboration has already been found and that many old occult concepts have proved or may prove of value as a working-hypothesis for Psychical

Corroboration of
Theosophical
Data

Approach to
Theosophy

A Working Hypo-
thesis for Psychical
Research

¹ London, 1929.

² *Ibid.*, p. 517.

³ Those occultists themselves lay stress upon the fact that their work is that of pioneers with many shortcomings; cf. the foreword to *Man: Whence, How and Whither*, by A. Besant and C. W. Leadbeater (Adyar, 1913).

Research. I conclude this paper by making some remarks as to the lines on which researches may be undertaken in the present subject.

First of all, those who claim to possess faculties enabling them to obtain direct knowledge of the unseen world should collaborate with scientists for experiments. Such collaboration was for some years rendered difficult by the experience which Mme. Blavatsky had with the committee of the S. P. R. in 1884.¹ One of the younger occultists, Mr. Geoffrey Hodson, willingly offers himself for such experiments.² I expect much work in that direction.

Secondly, theosophists should pay great attention to the development of Modern Psychology. The great value of old Indian Psychology which always included occult phenomena is nowadays recognized in the West. Undoubtedly, this will greatly influence the further development of Psychical Research.

Thirdly, competent theosophical thinkers should endeavour to test the old occult theories by the data Psychical Research procures them.

Fourthly, every one sufficiently trained in careful self-observation, having experiences of the kind Van Eeden, Muldoon and others wrote about, should publish a report in scientific form in one of the periodicals on Psychical Research.

¹ The report of this committee "appointed to investigate phenomena connected with the Theosophical Society" branded Mme. Blavatsky as a fraud and a charlatan, notwithstanding the fact that the phenomena were not investigated at all, the judgment being only founded on what persons stated who witnessed the phenomena one to four years before their interrogation! cf. Proc. S. P. R., Dec. 1885, pp. 201 ff. Compare A. P. Sinnett, *The Occult World Phenomena and the S. P. R.*, London, 1886, Annie Besant, H. P. Blavatsky and the Masters of Wisdom, London, 1907, W. Kingsland, *A Critical Analysis of the 1885 Report of the S. P. R.*, London, 1927 and C. Jinarajadasa, *Did Madame Blavatsky Forge the Mahatma Letters*, Adyar, 1934.

² cf. *The Science of Seership* (London, 1931) and *Some Experiments in Four-Dimensional Vision* (London, 1933).

A NOTE ON PSYCHICAL RESEARCH

BY B. L. ATREYA

IF the title of the present work, WHERE THEOSOPHY AND SCIENCE MEET were a question, I would have quickly and unhesitatingly answered it, "In Psychical Research". Dr. D. H. Prins, Psychical Research:
A Meeting Place
of Science and
Theosophy the author of the preceding monograph on "Psychical Research" has already justified my remark when he said, "The development of Scientific Research into occult phenomena (psychical research) shows an approach to some fundamental ideas of ancient occultism and modern Theosophy. In future this approach can be expected to become still clearer".

Man, according to Theosophy, is very different from what the material sciences of Physics, Chemistry, Biology and Psychology take him to be. The physical body is merely the outermost garment of man who is essentially spiritual and has potentially present in him several superphysical powers and capacities which can be made actual by proper training. He has within him another body of a finer and subtler structure than any known to Physics and Biology, which is capable of functioning beyond the limits of the physical body, and which can exist and function independently of the latter, and which survives bodily death. Theosophy, like most of the religions of the world, has been holding this view of man despite all that modern science has said against it. It is only this branch of science (Psychical Research) which is likely to bring back the lost faith of modern man in his superiority over material forces, means and conditions. It is the only science which, like Theosophy, gives a clue to the understanding of ancient scriptures and extraordinary attainments of yogins and mystics all over the world. And, finally, it is the only science which, like Theosophy, opens before man a field of infinite progress and perfection. Even miracles, reported to have been performed by great saints and sages

The great significance of Psychical Research

in all times and climes, and admitted by Theosophy to be events within higher and subtler laws of the Universe hitherto unknown to science, come within the purview of the possible for a deep student of Psychical Research.

Psychical Research, which goes by various names, such as, Metapsychics, Psychics, Metapsychology and Parapsychology etc. has brought to light such innumerable "facts" that even if a few of them are accepted

as "true"—and there is no escape from accepting them as true—its service to human knowledge would be greater than that of any other science, and its value to Theosophy would be beyond any calculation. Telekinesis, Telepathy, Extra-sensory Perception, Materialization, Apparition and the phenomena called "Spiritoid"—all of which have been accepted as "facts" beyond doubt by most of the scientific investigators in the field,—one and all, singly and taken together,—when considered in relation to our conception of man and the universe—will bring about a much more than Copernican change. Warcollier did not exaggerate when he wrote, "Research in Telepathy may revolutionize our concept of mind as much as the discovery of radium revolutionized that of matter"; and the great psychologist McDougall was quite serious when he said, "Its (Telepathy) importance for Science and Philosophy will far outweigh the sum of the achievements of all the psychological laboratories of the Universities of the two continents". "Telepathy", as Tyrrell puts it, "throws a gleam of light on the nature of things which no amount of study of the external world would ever have revealed".¹ "If such a phenomenon (as Materialization) is authentic", wrote Flourancy long ago, "it would be interesting to note the revolution which must necessarily follow in our biological ideas".² And who can exaggerate the consequential worth of an established theory of "survival" to which a lot of well-examined facts of psychical research are tending? It is bound entirely to change our values, our modes of life, our social relations and also political objectives. Man's moral fall and the consequent reign of present suffering, despite unprecedented advancement of physical sciences,³ is greatly due to his loss of faith in survival which all great religions and Theosophy have assured. If Extra-sensory Perception and Premonition are proved to be facts—and there is a lot of experimental evidence in their favour—

Its Service to
Human Knowledge

¹ Tyrrell: *The Human Personality*, p. 72.

² Flourancy: *Spiritism and Psychology*.

³ Vide General Introduction, Vol. I, pp. xxxv—liv.—ED.

meditation and inspiration, which have fallen into disrepute in the West, will regain their lost position in the life of man as sources of knowledge.

In fact, it will not be too much to say that among the modern sciences, Psychical Research is the only science on the findings of which depends the future of Theosophy, Religion and Ethics, to which the modern man, fed on the conclusions of the 19th century physical sciences, pays little heed. As the saying goes, 'iron alone cuts iron', it is science alone in the form of Parapsychology that will, if anything, be able to counteract the undesirable outlook brought about by science which has resulted in the present misery of mankind. The future hope of mankind lies in the advancement of this science and in the consequent change in man's outlook.

Bound by the limitations of space and time, we cannot here refer to all the valuable work done in this branch of science in the recent past by those who have devoted themselves to it. We shall content ourselves by quoting a few outstanding authorities with regard to what has been established beyond doubt by honest and sincere workers in the field of science, leaving it to our readers to see how far they go to establish the doctrines of Theosophy.

Having devoted no less than 30 years of his precious career to Psychical Research, Prof. Charles Richet, who was Professor of Physiology at the Faculty of Medicine in Paris, came to the following conclusions—conclusions which have been corroborated by later investigators: "Cryptesthesia (meaning thereby Extra-sensory Perception), telekinesis, ectoplasm and premonition seem to be founded on granite; that is to say, on hundreds of exact observations and hundreds of rigorous experiments. . . There is a faculty of cognition that differs radically from the usual sensorial faculties (Cryptesthesia). There are even in full daylight movements of objects without contact (Telekinesis). Hands, bodies and objects seem to take shape in their entirety from a cloud and take all the semblance of life (Ectoplasm). There occur premonitions that can be explained neither by chance nor by perspicacity and are sometimes verified in minute details. Such are my firm and scientific conclusions".¹

¹ Richet: *Thirty Years of Psychical Research*, pp. 599.

Prof. William McDougall, the well-known psychologist and thinker, wrote, "In my view the evidence for Telepathy is very strong . . . In my opinion there has been gathered a very weighty mass of evidence indicating that human personality does not always at death wholly cease to be a source of influence upon the living. I hold that a case has been made out for clairvoyance of such strength that further investigation is imperatively needed; and I would say the same of many of the alleged supernormal physical phenomena of mediumship".¹

Prof. J. B. Rhine of Duke University has the credit of having established Extra-sensory Perception as a fact. He writes, "Extra-sensory Perception is an actual demonstrable occurrence".² According to him, "E. S. P. is not a sensory phenomenon".³ It is "fundamentally different from sensation".⁴ "It seems to be a fairly dependable and persistent capacity, when it is given proper conditions for its functioning".⁵

Prof. H. H. Price holds, "The evidence for Telepathy and Clairvoyance is both abundant and good; and the evidence for Precognition—the most paradoxical, perhaps, of all the supernormal phenomena—is very considerable".⁶

Hereward Carrington, an experimenter of long standing in the field of Psychical Research writes, "Practically every psychical researcher agrees in thinking that the evidence in favour of the spiritistic hypothesis is now so strong that it may be justifiably employed as a *working theory*".⁷ "There is strong evidence to prove survival".⁸ About Materialization, Carrington writes in a recent book, "I personally am convinced of the actuality of Materialization . . . I have seen materialization, of unquestionably genuine character. I have seen, touched and felt hands and portions of a living body which have

¹ McDougall : *Religion and Science of Life*, p. 80.

² J. B. Rhine : *Extra-sensory Perception*, p. 222.

³ *Ibid.*, p. 223.

⁴ J. B. Rhine : *New Frontiers of Mind*, p. 144.

⁵ J. B. Rhine : *Extra-sensory Perception*, p. 220.

⁶ H. H. Price : "Questions about Telepathy and Clairvoyance," *Philosophy*, October, 1940.

⁷ Carrington : *The Story of Psychic Science*, p. 333.

⁸ *Ibid.*, p. 205.

occasionally melted within my grasp . . . Genuine phenomena of the sort may be *rare* but they are, in my opinion, undoubted".¹

Tyrrell, a well-known experimental investigator, writes "The experimental side of Psychical Research has now reached a point at which it can be said that telepathy and precognition have been revealed under the strictest conditions that science can demand".² Further, he says: "The phenomena of Psychic Research (properly so called) point strongly towards communication from the dead".³

Dr. Osty says, "Twelve years of experiment with many metagnonic percipients and a considerable number of persons have given me absolute certainty that there are human beings who can foretell the future of other persons. . . I am certain of this as I am certain of what we call the earth, the sun, the stars, minerals, vegetables and animals".⁴

Camille Flammarion writes, "We must not hide from ourselves that these phenomena introduce us into another world, into an unknown world, one that is still to be explored in its whole extent".⁵ The conclusions to which Flammarion came are: (1) The soul exists as a real entity independent of the body. (2) It is endowed with faculties still unknown to science. (3) It is able to act at a distance, without the intervention of the senses."

Such quotations from works on Psychical Research can be multiplied *ad infinitum*. Some time ago we had occasion to survey the whole evidence of psychical research with reference to the personality of man and came to the following conclusions: "All these indicate that over and above the physical body, and separable from it at times, there is some superphysical or spiritual principle in man, which is capable of directly knowing objects at a distance as well as thoughts of other individuals. . . . This parapsychical principle in human personality is not only capable of supernormal *knowledge* but is also capable of supernormal *action*. . . It is further capable of controlling, curing, recuperating and building the body and its organs. . . . That this principle, which appears to be

The Author
Himself

¹ Carrington: *Laboratory Investigations into Psychic Phenomena*, p. 78.

² Tyrrell: *The Personality of Man*, p. 130.

³ *Ibid.*, p. 205.

⁴ Tyrrell, quoted by, in *The Personality of Man*, p. 178.

⁵ Camille Flammarion: *Mysterious Psychic Forces*, p. 436.

⁶ *Ibid.*, pp. 452-453.

superphysical, superphysiological, superconscious and even supermental—yet a veritable factor in human personality—may not be subject to death is evident. . . . The physical body appears to be merely an external shell of the astral which is separable from it. . . . The evidence for “survival” of the spiritual principle—the relation of which with the astral body is not yet fully known—and its ability to influence the mind and body of a living person, is now overwhelmingly great and cannot be easily explained away. . . . Once survival is accepted as highly probable, as it now seems to be, and also a will on the part of the surviving spirit to communicate with the living and to materialize—which is a sure indication of the interest of the deceased in this world—it is not difficult to understand that the surviving spirit may reincarnate on the earth, and may also occasionally remember some events and episodes of some of the past lives. These are the simplest conclusions we can draw from the facts discovered and investigated by the new science, the “Psychical Research”.¹

In a more recent survey of “*Parapsychology*” in the *Encyclopedia of Psychology*, Gardner Murphy, a well-known psychologist, sums up the situation in the following words, “A number of most competent and seasoned investigators are completely convinced of the reality of post-mortem communication, others completely convinced that paranormal powers of the living are adequate to the task; a large group declines to reach a final judgment on so complex an issue. But no systematic attempt has been made, so far as the writer is aware, to interpret the phenomena without the extensive use of some working hypothesis regarding paranormal capacities”.² In fact, to admit paranormal capacities is to give up the narrow materialistic conception of man.

Thus we see that Psychical Research, which is a scientific investigation into those strange, rare and supernormal occurrences in human experience which are not explicable in terms of the commonly accepted principles of physical, biological and mental sciences, has brought us to a view of human personality which is very akin to what is held by Theosophy. Thus do Science and Theosophy meet in Psychical Research. It is in the interests of both Science and Theosophy to further and advance this branch of research.

¹ B. L. Atreya, “Supernormal Factors in Human Personality,” Presidential Address to the section of Psychology and Educational Science, *Proceedings of the Thirtieth Indian Science Congress*, pp. 272-275.

² Phillip Lawrence Harriman : *Encyclopedia of Psychology*, p. 434.

MEDICAL PSYCHOLOGY

By L. J. BENDIT

I

FROM the point of view of the psychologist, the meeting place of Theosophy and Science is the mind of man: that part of him which makes him different from the animals and other subhuman kingdoms, and within the circle of which he first becomes aware of himself as an individual distinct from the surrounding world. And it is in terms of what Theosophy and Science represent to this mind that we can best consider the subject.

Science is the accumulation of knowledge gained from the outer world, through experiment and experience, sifted, classified, synthesized. It is the work of the mind extended in time and space, acting through the senses, yet, as far as may be, checking and correcting what the senses show, against external standards of measurement. These standards belong, by definition, not to the mind of the scientist but to things existing in the world external to that mind. Thus, the metre, the standard of length, is, supposedly a certain fraction of the circumference of the earth at the equator, and other measurements are defined in a similar way. Consequently, they have a certain absoluteness which does not vary according to who is using them. Thus, science presents to the mind a certain body of material, derived from the worlds external to itself, that of matter, of time and space.

Theosophy, on the other hand, is something quite different. It is not a science—else the latter half of the word would be ‘-logy’, not ‘-sophy’. In its original Neo-Platonic sense, it means ‘God-wisdom’, and wisdom is an implicit thing, belonging to a deeper level than knowledge. Consequently, Theosophy

is essentially indefinable except as a state of consciousness. This state of consciousness reflects into the mind as a certain attitude towards life. It is not a set of doctrines, no matter how basic these doctrines may be. But in this age, the man whose consciousness touches, no matter how slightly, the level of God-wisdom, will probably find that his mind tends to crystallize this wisdom into certain more or less defined ideas, such as that of the existence of God, clearly the spiritual nature of man, the unity of life, the universality of natural law, and soon, which form the groundwork of what is today known as theosophical doctrine.

Thus the mind of man, from the psychological point of view, is the place where the two great streams of knowledge meet: the theosophical from the timeless, spaceless, spiritual world, and the scientific from the world of time, space, and matter. Theosophy from the world within, science from the world without. The mind, therefore, comes to act as a womb within which, as a result of the wedding of the two polarized forms of knowledge, the consciousness of Self is developed. This process of individualization goes on until a critical point is reached where the Self is strong enough to be able to dispense with mind as a citadel separating it off from the world of not-self, a cocoon within which the embryonic Man can grow, and then breaking free, it henceforth uses mind as its instrument, its servant, instead of being kept cribbed, cabined and confined within its strictly limited field of activity.

This freedom of the Self, and its integration with the mind and the other aspects of the personality is the goal of every school of religious aspiration, whether it be labelled theosophical or not. It is also coming to be understood as the key to every psychological problem and difficulty. In short, Theosophy and the science of psychology are reaching the same point, seeing man in the same light, expressing his problems in similar terms, and realizing that the cure lies along lines of spiritual unfoldment and expression.¹ This is very different from the original materialistic basis of psychology, and represents a marked step forward in thought. Yet it is one which is no more marked than that in other branches of science where astronomers, for instance, come to the point where they realize that the Universe could not exist unless it were planned by some Intelligence far transcending the best that man can do, and creating laws

Mind, the Meeting
Place of Science
and Theosophy

Spiritual Unfold-
ment, the Goal

¹ Vide General Introduction, Vol. I, pp. xxxv—liv—ED.

and conditions of perfect order and regularity which apply throughout the whole wide field of the cosmos.

II

Psychology originated as a science (in the western sense of the term *i.e.*, as measurement of psychic functions) less than a century ago. It is an interesting point that, chronologically, what is called the Theosophical movement also began to make its influence felt in Europe and America about the same time. And it is significant inasmuch as the rise of both movements indicates a new interest in the phenomena of consciousness, and of the "psyche" underlying these phenomena.

Different Aspects
of Psychology Academic psychology was strictly scientific, in terms of the definition given above. But when one is dealing with subjective phenomena, these become incommensurable and, consequently, a subject rather for speculation and comparison than for measurement. All the more so it was when—as in the case of Charcot, his disciple Janet, Richet, Bernheim, Myers and many another—the study turned to the abnormal, the morbid, the strange

Freud phenomena of insanity, hysteria, and so on. It was found here that the strict path of objective science had to be forsaken, and a less accurate but much more vitalistic and dynamic view had to take its place. This aspect focussed itself in Freud, who first attempted a general explanation of these phenomena. But, owing to the peculiarities of his mentality, he and his school were unable to follow it up; and they consider as heretics those who have been bold enough to break away from his empirically-based dogmas, and to go into regions which he dare not enter.

Of these, probably the most interesting, because of the greatness of his erudition, the wideness of his views, and the adaptability of his mind to new ideas, is Carl Jung of Zurich who has made a deep study of the same sources from which we draw our modern version of Theosophy, and has incorporated a great deal of them into his psychology. His point of view in regard to them is well expressed in the following quotation :

Eastern Psychology We Europeans are not the only people on the earth. We are just a peninsula of Asia, and on that continent there are old civilizations where people have trained their minds in introspective psychology for thousands of years, whereas we began with our psychology not even yesterday, but only this morning. These

people have an insight that is simply fabulous, and I have to study eastern things to understand certain facts of the unconscious.¹

This view, however, is one which, in more or less degree, is accepted by a much wider circle than those who would class themselves as followers of Jung: it is, in fact, a sign of a tendency much wider than that of specialists in psychology as is shown by the very great, if superficial, public interest in eastern lore—magic, Yoga and philosophy.

This acceptance of introspective psychology, where the person is, at the same time, both the observer and the object of his observations, must clearly take one away from the two-dimensional view of science as measurement. Moreover, it introduces a new aspect to the question, as relating to time-consciousness.

For western science observes longitudinally in time: it considers the sequence of events, looking for the causes leading to certain effects. In studying consciousness, however, the attempt to do this must result in a lack of solidity and true perspective. It is Jung who argues that the science of causality is not the only science; but that there is another science for which he has coined the word "synchronicity", attempting thereby to translate the elusive principle of Tao, on which, he claims, Chinese science is based. Tao, in this sense, represents a cross-section of time—the present. And it takes into consideration, not why a certain effect comes chronologically after a certain cause, but rather the coincidence and relationship of a number of phenomena, no matter of what nature, at a particular moment of time.

If we consider these two sciences or rather aspects of science together, we get a solid view of the world, where the science of causality and that of Tao complement and enrich each other. Applied to the living being, we have the principle of Karma. For Karma, properly understood, shows us not only *how* certain things come to happen, as a result of forces reaching the present out of the past, but also the *meaning* of what occurs at that particular moment; which, if we comprehend it properly, leads on to *acceptance* of the experience, and so to freedom from it.

¹ "Fundamental Psychological Conceptions": a Report of Five Lectures. Privately printed.

Psychology is the science of consciousness expressing itself on the physical level. But for the sake of conciseness we may take it as being the study of human consciousness; for we really know little that is more than skin-deep about any other creature, since the most valuable material we have is that obtained from subjective examination, revealed by the person who is himself at once the observer and the object he is observing. We can only, as the Behaviourist school points out, infer that an animal behaving in a certain way, is experiencing what we call fear, because if we were to behave in a similar way we should be afraid; we do not and—they say—cannot *know* that we are right.

Therefore, the major work of psychology is to study subjective man—his behaviour, thoughts, feelings, imaginings.

If one wishes to examine a piece of material, one is not content to do so in its quiescent state only; one observes it also under varying conditions of activity, and subject to strains and tensions which reveal to us its peculiar properties, its strengths, weaknesses, under what conditions it will collapse and be destroyed. And often the most valuable information is gained only by studying it under stress. Thus a piece of India-rubber on a table might be anything; one can measure and weigh it without discovering its particularities; it is only when one twists it or squeezes it that something of its real nature, its uniqueness, becomes apparent. So it is with the human mind; and so it is that a study of man under stress, when diseased and even insane, has taught psychology more of the mechanism of the "psyche" than the study of "normal" psychology. This will explain why, in this paper, we deal indiscriminately with both the abnormal and the healthy.

Yoga also studies consciousness, but its purpose is to carry it from where it stands, through various stages, up to a culminating point of illumination. And the studies of Yogis of millennia past have given us a science of spiritual growth which adds a new realm to what we can learn through the study of consciousness expressing itself through the ordinary brain.

WHAT IS MAN?

Many and various are the views of psychologists on this question. The most material, nowadays, would consider him to be essentially a

highly complex electro-chemical machine, compounded of level upon level of controlling machinery, from the chemical unit of the atom or molecule, through the tissue-cell, to the organ (heart, liver, muscle, etc.) which in turn is governed by an electrical nervous impulse passing along the nerves.

The nervous system itself is built up in levels of reflex arcs. One of the best known of these is where one taps the bent leg just below the knee-cap; the sensory impulse passes to the spinal cord, entering it by the posterior or sensory nerve-root, is relayed across this to the motor nerve-cells which send an impulse to the quadriceps muscle in the thigh, which causes a slight kick to occur. The action of this reflex depends on the nerves being intact. But it is found that, in certain diseases, the reflex becomes exaggerated because a higher level of the nervous system is out of action, which acted as a brake or damper inhibiting the lower one. Thus, it is a general principle that, in the central nervous system, the higher and more recently evolved levels inhibit and check the lower, not so as to nullify its action, but so as to co-ordinate that action with others, into a higher and more complex system, fulfilling more elaborate purposes. The relevancy of this point, and the general application of the principle, we shall see later.

Basing their conception of man on these physiological discoveries, the materialists see man and all animal life as existing by virtue of a series of more and more complex reflex actions, conditioned by experience so that they will often react "irrationally", in the absence of the direct stimulus, and result in complicated modes of behaviour. The Russian scientist, Pavlov, experimenting with dogs, laid the logical basis of the Behaviourist creed when he showed that a dog could be "conditioned" to secrete saliva when a bell was rung, and in the absence of the food which, normally, would be the exciting stimulus. This was done by making a link in the dog's mind between the sound of the bell and the appearance of the food. By this, and by increasingly complex experiments, it can be argued logically that *all* behaviour is the result of increasingly complex chains of reflex action linked one to the other by "conditioning". The behaviourists, however, ignore one fundamental matter, and quite fail to explain it; that is the phenomenon of *awareness* and its result, self-consciousness; this, they say, being subjective and not

¹ See *Physiology*, this Vol. pp. 10-12; also *Western Scientific Research and Etheric Double*, this Vol. p. 32.—ED.

measurable, is outside the scope of strict science. Indeed, if one is going to define science in the narrow sense as measurement, there is no science of psychology, unless one ignores the greatest part of the field of psychic activity, that is, consciousness—active, latent or potential.

The principal difference between man and animal appears to be that the animal is governed by *instinct*; this is defined as behaviour towards a given end, which has not been learned by the individual in question, but which is the common property of his whole species. This instinctive force is, directly or indirectly, related to preservation of the species, and seems quite automatic: given certain conditions, certain activity takes place until the conditions change, or the instinct is satisfied. There is no evidence of conscious choice in instinctive action, nor of self-awareness in it, no matter how complex the process. It is purely spontaneous. Man is now recognized as having in himself all the instincts of animal life; he is, in short, an animal.

Psychology, therefore, is aware of a kinship between animal and man; and if we add to the above, a study of the work of Sir Jagadish Chandra Bose on the reactions of plants and minerals, we have a further recognition of the kinship of all living creatures: they react in a similar manner throughout, the difference being rather one of degree and complexity than of quality. Theosophy has as its basic tenet the conception of the One Life inspiring all creation, and therefore the same in its essence all through.

On the question of the difference between man and the "lower" kingdoms,¹ however, psychology is less united. For some psychologists hold that man is *merely* a superior animal; while others, condemned by the former as mystical, see man as animal certainly, but with a spiritual individual principle superadded, which makes him different from the animal, and gives him certain qualities which are essentially human. *Self-awareness* is the cardinal one of these: every intelligent child sooner or later experiences the feeling, "I am I", and thereby, as a corollary, he realizes himself as different from other people and objects with which he comes into contact. This occurs often at the age of four or five, sometimes much later, as an explicit and clear conscious experience; but in whatever form it manifests itself, the behaviour of the child changes at about the

¹ See diagram facing p. 288, in Vol. I of this Series.—ED.

age of four or five; this is the age, at which he begins to realize the need to adapt himself to his environment, and no longer lives in a purely ego-centric universe. It may be taken to correspond to the time when, apparently, the spiritual Ego of the child takes possession and control of his body, the culminating point being at about seven years of age. Consequent upon this dawn of *self-consciousness*, which is, perhaps, the best word to apply to the awareness of a relationship between the subjective and objective worlds (as distinct from awareness of *oneself*, though closely linked to it) comes the first action of *free will*, which is a *power of choice* between two alternatives. This power of choice is governed by conscious *memory*; that is, the ability to recall the past and its experiences, to put these memories together, and to anticipate the future in the light of them, *i.e.*, to make *judgments*. These choices and judgments may result in releasing the instinctive impulses relating to a given situation, or they may result in resisting or modifying them. Thus, psychic conflict occurs as a result of the foregoing processes: an animal, in fear, gives rein to his instinct of self-preservation and runs away. A man may do so too, but he may also decide to stay where he is, in spite of his primitive reaction of fear.

It will be noticed also that *consciousness of time* seems to appear, for the first time, in humanity. It is interesting, in connection with this, to notice that the Australian Black, one of the most primitive of human races now extant, has this only in very small measure; he "takes no thought for the morrow", and it never occurs to him to keep the food he has not eaten, nor the fuel he has not burned, because it will be useful, next day. His mind is of the simplest, and scarcely more than animal. As against that, a highly intelligent dog, horse or elephant, for instance, appears to overlap in some measure the strictly human level, in his self-control and power to think, and even in his self-awareness; dogs, particularly, sometimes show decided aversion to being laughed at, just as a human being does.

It is only in the light of the principle that life is continuous and evolves as it goes on that we shall begin to understand the nature of man. For man is, as we have said, animal with higher faculties and principles added. He is, therefore, animated in the first place by instinct, the great driving force of the lower kingdoms, sometimes called in psychological

The Australian
Black "takes no
Thought for the
Morrow"

The Libido or Force
of Desire

language the *libido*, or force of desire. Theosophy recognizes this force of the emotional or astral plane of consciousness, as the great moving force in the personality of man, as the outer or lower self. It is the force which has been evolved by him in the past, whether by this we speak of the common past of the group or race, or whether we speak of his individual evolution through many incarnations. In short, he brings with him all the tendencies which, as animal, he spent several millennia in developing.

In more recent times, however, as he learned to think, to judge, and to act on his judgments, man became confused; for he learned that crude instinctive action frequently upset his estimates, and prevented him from achieving what he set out to do. So there came a phase in which he became afraid of his instincts and of his feeling-life, and whether under the guise of ethics and religion, or of scientific rationalism, he tried to stifle and shut away all that he, as animal, had achieved.

The psychological world is in some measure divided on the solution.

The Lower Functions need to be subordinated and adapted to the Higher

Some, quite rightly, point out that nervous breakdown and symptoms of mental disease are due to the repression of instinctive forces, and that this energy must be released. But these people fail to realize that the release of this energy in the animal phase must result

in repression of the peculiarly human aspects of consciousness, or a distortion of them to purposes which are wrong. Others, however, realize that this release to be effective, must lead to a proper and healthy adaptation of the animal instinct to human needs. Modern Theosophy and religious philosophy strongly argue this. In fact, the religion of the Churches has tended to refuse to admit instinct into its respectability. And yet, neurology, as mentioned above, gives a logical and scientific basis for the argument that the lower (in this case instinctive) functions need to be subordinated and adapted to the higher and wider functions, not repressed and put out of action, but made use of to achieve the higher end.

Thus, man should learn to adapt his past, the animal and pre-animal side of his nature, to his human present, and not try to ignore it. Here, Theosophy and certain schools of psychology agree completely, in principle if not in terminology.¹

¹ See diagram, p. li, in Vol. I of this Series.—Ed.

The Universe is
Governed by Law

We have spoken, so far, of the past of man leading up to the present, of the forces which go to make up his Karma. But evolution is progressive; and unless one takes the world to be casual and fortuitous, there must clearly be a goal to that evolution. Science nowadays sees, what Theosophists have always believed, that the Universe is one of Law, not of chance; and thus there must logically be some path along which the concatenation of forces from the past must lead unless modified on the way. Thus it would appear that man is predestined, by his past, to go along that path. But it is here that western science, and the kind of psychology which is in tune with theosophical thought, part company, for man is developing free will and is therefore becoming increasingly able to set a goal for himself. The inner conception of that goal must of necessity affect his actions in the present day. His own free will as it increases, sets the pattern of his life at any stage, *i.e.*, he is predestined to a certain course of action by his own free will. Jung realizes this, and his therapeutic methods are based on the idea that man is ill and unhappy owing to the things arising from the past, which hold him back from working towards his goal of self-realization and self-fulfilment. We are inclined to think of Karma as belonging to the past: but we are also beginning to see the importance of a Karma which brings forces to bear on the present from the *future* as well, *i.e.*, the effect of this idealized goal on our present. It is the combination of karmic forces from the past impinging on the forces reaching "back" out of the future, which makes the *present*. And in that transient moment, the present, the resultant of these forces, should lead to a particular action: this is *dharma*, sometimes translated as "duty". Dharma means carrying the past with one into the future, and the right adaptation of that past (Karma) to the future goal.

Psychology and
Ethics

We are now, therefore at a point where ethical considerations come into the scope of psychology. And Jung is not afraid, as so many psychologists have (with good reason) been, of bringing them into his work; he speaks of a case in which a patient had full insight into his symptoms according to the rules of psycho-analysis, but nevertheless remained neurotic. Jung found out that he was living by sponging on a woman who was in love with him, and he told him that he could not get well so long as his moral standard was as low as this—which, as he himself says,

may be an unscientific verdict, but is nevertheless quite logical if one considers man in the terms discussed above.

For each person has his own *dharma*, or duty, to himself and his environment, and he cannot escape the consequences of living below the level of ethics which is consistent with this.

Thus, Theosophy and Psychology draw together where they consider man as evolved through the animal kingdom to something beyond, and having a spiritual principle and the rudiments of free will. Further, he is an evolving entity, who lives in the future as much as in the past and present, the future being represented by his vision of a goal of spiritual self-realization, self-fulfilment, liberation, or whatever name one wishes to use for it.

INCARNATION

We come now to the question as to what is it that is born into the physical world, emerging from its mother's body, and, from that moment, progressing from almost complete helplessness and dependence on others to physical maturity, when, in its turn, the cycle is repeated, with the erstwhile baby taking on the rôle once played for himself by his parents.

Here psychology, as a science, limits its observations to a confirmation of the fact that each baby is born with a particular temperament and character in embryo, which makes him an individual being—thus re-proclaiming as a discovery what every observant person has known for millennia. This character is said by some to be due to a particular combination of hereditary traits, passed on through the germ-plasm of the parents. On scientific grounds, as in the case of the behaviourist theory, it is difficult to find fault with the logic of this deduction. Others, however, feel that this new-born entity brings with him a vast background, if not of individual, then of racial material, much of which is destined to remain unconscious.

Theosophy would not dispute these points. But the theosophical conception of man as a reincarnating entity adds further considerations which, though scientifically unproved, nevertheless would serve to clarify and amplify the psychological conception, and to offer a comparatively simple explanation for certain strange phenomena which sometimes occur.

For, if man reincarnates, bringing with him latent memories of his own life in earlier times, in civilizations governed by a more primitive level of culture, and even, somewhere in himself, the levels of consciousness

belonging to the "lower" kingdoms, we shall readily understand how, as the baby grows, we shall find in him an epitome of all the races of man up to the one into which he is now born, and sometimes even (say, in the case of some negroes) of a culture superior to his own race.

If this is so, no doubt, much of what Jung classes as belonging to the collective levels of the unconscious, really belongs to the individual himself, and serves as a means by which he will contact the general collective levels of mankind as a whole, while his personal unconscious is concerned essentially with the experiences of this particular life, in this particular physical body. In some exceptional cases, moreover, where "memories" of past lives are in close contact with, and easily available to, the person incarnate (either in a certain class of "phantasy" pictures, or in certain dreams, etc.) one must consider the demarcation between "collective" and "personal" unconscious to be either thinner, or differently placed, from where it is in the average person.

One must add that, in practical psychology, it makes very little difference whether one considers past life memories as reality or phantasy; it is safest to consider them simply as material for analysis, lest one should allow an important piece of material to be left unanalysed and unresolved. In any case, it is highly probable that the "memories" of many are purely imaginary; it has often been pointed out that it is rare to "remember" a past life when one has not been somebody great and exalted, or when one has acted discredibly.

It is, moreover, stated in some books that the individual who incarnates is not fully in possession of his physical body for some years of his life; and it is at a point somewhere between five and seven years of age that the individuality becomes installed in its physical vehicle. This corresponds to the psychological view that it is in the first years of life that, for better or for worse, the general scheme of the personality-to-be is laid down.

GROWTH

From the moment of birth, the focus of consciousness passes through a series of levels, which correspond to those of earlier races of humanity. The drawings, play, mode of action, speech, and so on, can be compared with those of early races. One must, however, beware of making a

Different Levels of
Consciousness

•

statement that a child is now like the Fiji Islander, and expect to find him reproducing Fiji ways—one is speaking here in terms of *levels of consciousness*; and while in a native Fiji village the young child would adapt himself to native ways, the child at the Fiji-level in a western city adapts himself to the conditions of that city, taking in as much of its atmosphere as a native Fijian could, and remaining puzzled by or indifferent to the rest until later this also comes within the scope of his understanding.

The reader is referred to Marcault and Hawliczek's *Studies in Evolutionary Psychology* for a theosophical study of race-psychologies, in terms of the law of cycles.

Physical (sensory-motor), emotional, and intellectual levels are noticeable as overlapping each other considerably. At first, these are ego-centric. Then, at puberty, there is a repetition of this cycle but more outward-turned and related to the objective world now, whereas before they were unaware of external things save as projection of the child's own inner imaginative world. He is, at first, still "trailing clouds of glory", and the "shades of the prison-house" of awareness of an outside world which does not respond to him, have not yet "closed in upon the growing boy"!

EVOLUTION

Reaching maturity, the individual is recognized intuitively to be no longer in need of tutelage, either at home or in the nation; he "comes of age", is a citizen, and is free. Here, most stop and drift along to the end of their lives.

But a minority of humanity are seekers, not content to drift with the stream, but anxious to swim and to discover more of life for themselves. They are the ones who wish to hasten their evolution, and who, whether they belong to any religion or creed or not, are essentially religious people. They seek some fulfilment, self-realization, liberation, Nirvāṇa, as the goal of their lives.

And psychology today, while ever watching for illusions and false aspirations, has come to recognize the nature of the problems of such seekers; they are the ones who look to the future, who are aiming at a goal, and who, consequently, most feel the effects of their past holding them and preventing their progress. And these, while they present much in common

The Problems of
different Ages

with the neurotics among the "drifters", have something more in them which gives a different orientation to their psychology, and needs eventually a different kind of treatment. The problems of middle-age, taking this to date from the middle thirties, are in any case often different from those of a younger person, as they become teleological rather than retrospective. Thus, a man who has reached the top of his profession, becomes depressed because he sees nothing ahead of him; such a man can only be cured if he can find some further goal, involving a deeper conception of success and completeness. His problem is essentially religious and is concerned with finding him-Self; and his treatment, although it must concern itself with past failures and psychic injuries which have obscured this goal of spiritual self-realization, and placed before him false goals of material and social success, is ultimately to turn towards the future and away from the past.

The parallel between the description of the four phases of life described in the Laws of Manu and what is described above is very close. For man starts as a child, becomes a student, then a householder and man of business, and then, in the later part of his life, is the time to become a religious man, a mystic, a sanyāsin.

SYMBOLS AND DREAMS

Much of modern psychology is concerned with the study of symbols. These occur in everyday life in the fact that objects receive an individual and symbolic subjective value from the beholder; our language, with its similes and metaphors indicates this quite clearly. But a richer symbolic language is to be found if one studies dreams, either sleeping dreams, or day-dreams, or "dreams on paper" such as spontaneous or automatic writings, drawings and so on. Every work of art, moreover, is an objective presentation of part of the psyche of the creator.

In the matter of dreams, theosophical students suggest that many of these are memories of actual objective experiences on another plane, during sleep. And proof can be found that this may well be so sometimes—but much less often than one may be tempted to imagine.

There is good reason to believe that most people only remember a fragment of their dreams, occurring just before waking, and that these are in reality dramatic representations of an endo-psychic situation, rather than an objective experience.

The Freudian school would have it that the whole meaning of a dream is to express an unfulfilled sexual wish, more or less veiled. But, apart from the failure of this as a practical proposition, the view is too narrow and does not cover facts so that the psycho-analytical school has had to devise theories which are often illogical and contradictory, to bring their explanation within the scope of their sexual *corpus dogmaticum*.

More tenable is the view that dreams have a teleological meaning stating a situation, and offering the solution, in much the same allegoric and cryptic way as did the oracles of old. The nightmare is a statement of a dilemma in which the key is not to be found; but the dream thus becomes a factor of evolutionary value, a means of vicarious experience and solution of problems.

Jung, moreover, distinguishes two types of dreams, one of which is individual and concerns the dreamer alone, while the other—"big" dream—brings in symbols and ideas relating to the community or the race, and comes from the collective levels of the unconscious. In the latter especially, but not exclusively, does one tend to find symbols belonging to the levels of mythology—god-like, angelic, elemental figures appear in them, as well as symbolic shapes. From a careful study of these, compared with ancient occult texts, Jung claims that it is possible to determine the existence of even physical diseases, to see, to some extent, how the individual or the racial future is shaping, and so on. Fantastic as these claims may seem at first, Jung justifies them, in some instances at least. In any case, he may claim to have suggested a new aspect of symbology. Moreover, he sees in symbols, and especially in such universal symbols as the Cross, the Svastika, etc., many layers and levels of meaning, belonging to individual and to collective or universal levels. Thus, he does not deny that the male organ is a phallus, but he denies that all phalluses represent the male organ; the phallus, in obverse forms, is a universal symbol of the masculine creative force, whether of God or animal, just as cups, grails, cauldrons, represent symbolically the feminine aspect of nature.¹

¹ See monographs on "Symbology" in Vol. I of this Series, p. 135 and "Mythology" in this Vol. II, p. 34.—ED.

The Objective Existence of Entities such as Angels, Fairies and Elementals

A point on which psychology has expressed no view, however, is that of the *objective* existence, outside the individual psyche, of occult forces such as those invoked in ceremonial and magic; or of entities such as angels, fairies and elementals. But a very distinguished psychologist, in answer to a question, said that he thought these things *did* exist objectively, or else we should not find them used constantly in the same forms and as symbols of the same things in the subjective psychology and dreams of the individual. The general acceptance of such a view, if true, would undoubtedly be of great value to the psychological worker.

III

No article touching on the general field of psychology today is complete without mention of a branch of research which is growing and extending in many places. I refer to that known as Parapsychology, which overlaps very largely on to the older field of Psychical Research.

This represents the scientific approach to matters on which Theosophy has had much to say and is concerned with such subjects as clairvoyance, telepathy and all the means by which knowledge is obtained by a sense or senses other than the five familiar ones in the physical body. The function—or functions as science is not yet definite about the matter—is nowadays given an omnibus label, “Psi”, to cover all forms of “para-normal cognition”, “extra-sensory perception”, etc.

Briefly, science has, as a result of painstaking experiments which J. B. Rhine was the first to perform, reached a stage where there is no longer any need to prove that “Psi” exists: it is taken for granted. And it is quite permissible to start a paper on that assumption, and to go on from there to discuss the subject. Cambridge University, for instance, has accepted a thesis on the psychological and evolutionary meaning of “Psi”, and granted a doctor’s degree on it.¹ The most recent experiments are now giving results which prove that mind and (or) will power can

¹ The author of this monograph got his M.D. on a thesis, since published by Faber and Faber under the title, “Paranormal Cognition: Its Place in Human Psychology”. This was also used for a paper read to the S.P.R., which society has said in its bulletin that, as far as it can make out, it is the first time that a university has accepted a thesis on any subject to do with psychical research, at any rate in Britain.—ED.

influence external objects and affect the fall of dice, and so on. True, this work is quite embryonic, but thus far has science come towards matters previously looked upon as subjects only for the mad, the cranky—and the theosophical.

Many intelligent people, moreover, are realizing that Psi is a common or universal thing, and that to be "psychic" is not a thing to be proud and conceited about. On the contrary, unless much hard work is put in, it is apt to be a weakness rather than a strength. It needs to be controlled by the individual, else it is apt to control him.

What has brought this about, whether Western Theosophy or the work of such more orthodox bodies as the Society for
 Other "Psychic" Channels of Cognition in Man besides his five Senses Psychical Research, it is difficult to assess. But there is the fact that it is nowadays accepted as a truth that man has other "psychic" channels of cognition besides his five senses. What this opens up to further research is clearly a huge field, necessarily leading away from materialism of the old order.

Theosophy has a great deal to say that is enlightening and valuable on all this, but it needed the clear-cut analysis of the scientific mind to make the foundations stable and so the whole subject intelligible. Here is a subject on which science helps Theosophy by its critical attitude, in pruning away vague and unsubstantial notions based on woolly thinking, and, conversely, where Theosophy—in its broadest sense—suggests to science the validity of many religious and quasi-religious ideas about man and his mentality. Those of us who are in touch with both camps realize this very clearly, as also its vast importance in the domain of practical therapy both of physical and psychological illness.

IV

In conclusion, nothing written today, while we are in the midst of the cataclysm of war, can long be up-to-date. Minds and bodies are both being constantly shaken out of old patterns and habits of behaviour and thought. Thus
 Scientific Materialism is on the Wane by the time this paper is in print, it may well be, so rapid is the advance of thought today, already behind the times. But one thing is clear: scientific materialism, with its lack of ethical and human standards, is on the wane, while spiritual, religious, and ethical values are coming to be recognized as things without which humanity cannot survive.

And this is what really matters ; not views and opinions which are so soon outgrown.

NOTE

1. Mr. Nevin Drinkwater's monograph on "Archæology" (Vol. I of this Series) is a very good corroboration of Occult Research. It shows that clairvoyance is a fact and that clairvoyant faculty may be used as an instrument for research.

2. A number of scientific corroborations of statements made in *The Secret Doctrine*, and other classical theosophical literature based on clairvoyant research, will be found on pp. 158-182, Vol. I of this Series.

3. Professor C. E. M. Joad's views on Madame Blavatsky given in the foot-note on p. 5, Vol. I, are worth noting here. He writes in his article on "What Is the Soul?" (*The Aryan Path*, 1937, pp. 199-203): "She [H. P. Blavatsky] anticipated many ideas which, familiar today, were in the highest degree novel fifty years ago".

4. The Rev. C.L. Drawbridge, *The Religion of Scientists*, Benn, 1932. Mr. Drawbridge sent a questionnaire to all the Fellows of the Royal Society with the purpose of obtaining an approximate idea of their religious views. Omitting those on Christianity which need not be considered here, these are the questions and the results :

	<i>Affirm</i>	<i>Negative</i>
1. Do you credit the existence of a spiritual domain ?	121	13
2. Do you consider that man is in some measure responsible for his acts of choice ?	123	7
3. Is it your opinion that belief in evolution is compatible with belief in a Creator ?	142	6
4. Do you believe that the personality of men and women exists after the death of their bodies ?	47	41
5. Do you think that the recent remarkable developments in scientific thought are favourable to religious beliefs ?	74	27

No attempt was made to define precisely the terms used in these questions since it would obviously require a treatise to expound both questions and answers. As might be expected, many of the replies do not permit of the simple classification adopted above, and the book is well worth reading for the extracts alone. One eminent man of science replied to all the questions "In the great Hand of God I stand" (Macbeth). Except for survival, which is evenly divided, opinion is clearly overwhelmingly in favour of a spiritual view of life.—ED.

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EDUCATIONAL PSYCHOLOGY

BY B. L. ATREYA

PSYCHOLOGY is scientific knowledge about human nature and Educational Psychology is a systematic application of this knowledge to the Process and Problems of Education. Education is a planned scheme for helping children to grow in the best possible way into full-fledged adults who will not only be fully developed individuals in themselves but also useful and co-operative members of society. In the modern age both Psychology and its branch, Educational Psychology, have made a considerable advance in understanding human nature and in discovering various methods of properly educating and perfecting it, although they still fall considerably short of the Wisdom Theosophy vouchsafes.

The main reason why modern psychology has not yet been able to rise to the full height of knowledge about human nature, which is embodied in theosophical literature, is that it is wedded to the objective method of science, which may be appropriate for the study of the objective world of inanimate things, and the limitations of which even in that field have very well been pointed out in recent times by scientific thinkers like Jeans, Eddington and Sullivan. Man being infinitely much more and much finer and deeper in structure than what merely the objective sense-observation can fathom and reveal, the present scientific method on which modern psychology wholly relies, and in which Introspection even is discredited, can never succeed in understanding the mysterious nature of man, the long-cherished ideals and longings of mankind, and the right process of perfecting human nature. Today, unfortunately, in spite of all the advancement in scientific knowledge, we know much less of man, on the whole and in a general way, than the ancients knew of him.

No wonder our present civilization and culture based on incomplete and fragmentary knowledge of human nature are proving defective and harmful to our real interests. Speaking about Western Culture of today,

which is in fact the dominant culture of the world, Robert V. Seliger writes: "Our culture today is a traumatizing one. Insecurity and inequality are rampant and the opportunities for success are contracting at a time when ambition is overstimulated by an inept school system and asocial advertising . . . In a culture where success is measured by a money standard, the vast majority are doomed to failure or mediocrity, no matter what their talents or accomplishments. A mounting panacea for these economic and social anomalies has been, for some, a steadily increasing resort to alcohol¹ to lose for a few hours the sense of personal failure, frustration of desire, or feeling of inferiority or thwarting". (*The Encyclopedia of Psychology*, p. 27). Alexis Carrel, the author of the well-known book, *Man the Unknown*, says rightly: "The enormous advance gained by the science of inanimate matter over those of living things is one of the greatest catastrophies ever suffered by humanity . . . We are unhappy. We degenerate mentally and morally . . . In the United States (which is the most advanced country in scientific education) the intellectual standard remains low in spite of the increasing number of schools and universities. In practically every country there is a decrease in the intellectual and moral calibre of those who carry the responsibility of public affairs . . . The only possible remedy for this evil is a much more profound knowledge of ourselves".

Unfortunately, modern psychology has failed to make any appreciable advance towards this "much more profound knowledge of ourselves". "The orthodox scientific psychology", the present writer said a few years ago in his presidential address to the Section of Psychology and Educational Science of the 30th Indian Science Congress, "is certainly not the science of the soul, self or mind. It is still a chapter of materialistic and mechanistic biology; its principal aim is to understand everything mental in terms of the physiology of the brain and the nervous system and the primary biological urges. It avoids all reference to soul, mind or consciousness". The very much needed "much more profound knowledge of ourselves" which according to Carrel is more wanted today than constructing "faster steamers, more comfortable automobiles, cheaper radios or telescopes", can come to us only through moral purification and intuitive penetration into the deeper layers of our being which both Theosophy and Yoga have been prescribing as indispensable means of Self-knowledge.

¹ See the monograph on *We and Our Food*, Part IV, of this Volume.—ED.

It is however, gratifying to a certain extent that, here and there, there is a revolt in the wide field of psychology against the general mechanistic, materialistic and behaviouristic tendencies, and some psychologists have begun to divert their attention to the deeper side of man and slowly and gradually the Spirit, the Soul, the Mind and the Self are emerging out of oblivion. Parapsychology has been included as a topic in a recently published *Encyclopedia of Psychology*. There is a movement known as "New Education" which discards the mechanistic psychology and builds itself on the basis of McDougall's hormic psychology. The following brief account of Educational Psychology embodies the principles of this new movement in the Psychology of education.

THE POSTULATES OF "NEW EDUCATION"

According to the new Educational Psychology (1) Man is not a physiological automaton. His behaviour is purposive, and he has many innate drives. (2) He is able to learn new modes of reaction. (3) He is capable of exercising control over his innate behaviour, and can delay, curb, sublimate and substitute his inner urges and their outer expressions. (4) Inactivity is not natural to man; in his normal life he likes always to be doing something. (5) Man is capable of learning and using language. (6) Man is capable of synthesizing and intergrating all his capacities and responses. (7) Man can be trained to perform very highly complex and complicated activities. (8) For a long period of childhood, man is highly plastic, and can be moulded into any form of character. (9) Man is capable of forming and changing habits. (10) Man is capable of voluntary and sustained attention. (11) Man is highly capable of imagination, with the help of which he can form high ideals, which exercise great influence on his actual life. (12) Man is social and is very much influenced in his individual life by social influences.

THE AIM OF EDUCATION

The goal of education has been conceived differently in different ages and in different societies. It is determined by the general outlook on life. The New Education, which is based on the findings of modern psychology, aims at producing healthy, happy, balanced, self-confident and socially useful adults.

To make it more clear, the properly educated man is one who knows the laws of physical and mental health and hygiene, and, on the basis of this knowledge, has formed habits which keep him healthy, strong and fit. He is happy, because he is healthy, successful in his efforts, able to satisfy his needs, and well-adjusted to his environment. He is balanced and poised, because he has learnt to control his emotions and passions. He is free from emotional outbursts and calm under trying conditions. He is self-confident, because he is fully aware of what he is capable of doing and achieving. He has chosen a proper vocation for which both nature and training fit him, and he takes keen interest and feels delighted in doing what he has to do. He is always resourceful and creative. He is socially useful, because by his work he contributes to society what it needs. By doing his own job in the best possible way he enriches the life of society. In himself a polished and cultured individual, he is an efficient worker and an indispensable member of society.

TRAINING IN CO-OPERATION

Until very recently the child was looked upon as an isolated and independent unit, who by his education had to prepare himself to struggle and fight for his own success, rise and happiness. He was trained in a competitive spirit for a coming struggle for existence. Today, this view is changed. Modern psychology has revealed that no individual is completely isolated from and independent of others and his environment. We are all inter-connected and inter-related like the cells of the body, and much of what we are is determined by our environment and society. Modern education, therefore, lays great stress upon the social aspects and social factors of our life. It trains children not so much in competition and struggle as in co-operation and mutual sharing of joys and pleasures. It teaches them to think as much of others as of themselves. It trains them in social imagination and co-operative activities. Sports, games, boy scout and girl guide activities play an important part in this direction.

HEREDITY AND EDUCATION

Each individual is, whatever he is at any time, a product of what he has inherited from his parents as his original nature and what has been modified by his environmental influences. Education is a great

environmental influence which brings about very important changes in one's nature. Children born of the same parents, and even twins, become very different from each other under the influence of varied environments and different kinds of education. Yet we are after our parents in many respects. This is mainly true physically.

Recently much work has been done in psychology in connection with heredity and its mechanism, and psychologists differ very much in their findings. Yet they agree on certain very important conclusions. One of these is that, although there is much definite evidence for the inheritance of many physical traits, hardly any evidence exists for the inheritance of mental traits. It is only general intelligence that seems to depend upon heredity. The intelligence quotient of each child is more or less fixed from early childhood and the same intelligence quotient is found to run in the family. Although education may equip a child with much knowledge and information, it cannot make him more intelligent than he is by birth.

The conclusion to which students of heredity have come—that characteristics and traits acquired by parents by their own efforts, and which they did not themselves inherit from their own parents, cannot be inherited by their children—is worth noting. Only those traits are inheritable which are carried by the germ-plasm from generation to generation. How the germ-plasm itself is affected by the lives of the parents, if at all affected, is a mystery not yet unravelled by biology or psychology.

PHYSIQUE AND EDUCATION

How the environment will affect an individual and what reactions he would make depends very much upon his physical structure. Our behaviour is very much conditioned by our inherited muscular, glandular and nervous organism. What we shall experience depends upon the capacities of our sense-organs, and how we shall feel depends upon our glandular and autonomic nervous systems. Our activities are very much limited by the structure and strength of our muscles. According to Adler, the style of life of many individuals is determined by an inferiority complex born of some inherited or acquired defect in some organ of the body. The blind, the deaf, the dumb, the one-eyed, and the hunch-backed have their own peculiar mental traits which educators cannot afford to ignore and neglect. Many a mental disorder is rooted in organic

trouble or in physical infection. Ernst Kretschmer, a German psychiatrist, has pointed out that personality types are very much dependent upon the physical structure of the body. The *Pyknic* bodily type, which is large, fat, strong and well-built, is characterized by alterations between emotional extremes and between activity and inactivity. In the case of mental breakdown this type tends to suffer from mania-depressive insanity. On the other hand, the *Asthenic* bodily type which is physically characterized by a small and thin body with un-prominent muscles and a tendency to blood-pressure, is mentally characterized by egoism, introversion, unsociability and repressed emotionality, and in the case of a tendency to mental breakdown, develops schizophrenia. Educators cannot afford to neglect and ignore such findings of modern psychologists.

GROWTH OF THE CHILD AND EDUCATION

There is evidently a remarkable difference between a newly born baby and a grown-up adult both in physical and mental capacities. Educators have to be fully acquainted with every marked stage of growth from birth to maturity of children. Psychologists have very carefully studied the physical, intellectual and emotional traits of children at these various stages of growth. They have marked them as Infancy, Childhood, Adolescence and Maturity. The education of the same individual has to differ very much in all its aspects at each stage of his development, as it is to be adapted to the needs and capacities of each stage of the growth.

At the adolescent stage, which is the most critical stage in the period of growth, the individual craves for the following four satisfactions, according to Hollingworth. (1) Freedom from dependence upon the family, (2) Association with the opposite sex, (3) Self-support, and (4) A Theory of life. Accordingly, at this stage he must learn to feel and should be allowed to feel that he is an independent and responsible individual. He should be taught to think for himself and to form his own opinion about every problem that confronts him. The sex-urge of the adolescent individual is to be very carefully handled. According to modern psychologists many nervous and mental disorders take their root in the repression of this urge. On the other hand, many boys and girls ruin their career by wrong, indirect and stealthy indulgence. How much contact between the two sexes should be allowed at this stage is a problem which has not

yet been satisfactorily solved by educational psychologists. Wisdom probably lies in the middle course between the two extremes—unrestricted and free sexual contact and complete isolation and avoidance of all possible contact between the sexes. The adolescent individual does not only wish to be mentally and morally independent of his family and parents but craves for economic independence also. This is certainly more true of the Western people than of Indians. If at this stage, the adolescent individual is provided with some side job in the school or outside, which may bring him some income, however small it may be, he feels delighted and learns to do his job well. The child should be encouraged to feel proud of what he has produced or done by appreciation of his work. Along with the urge for freedom there develops in the adolescent individual a keen desire to think for himself upon life and its problems, and to have a philosophy of life. If he is not able to evolve one himself, he selects one and begins to identify himself with it. It is an age of revolt for him, and he revolts against the current traditions of his family and society. The need of placing at this stage in the hands of the adolescent individual the right type of literature which gives in simple language a valid philosophy of life and an adequate conception of their true nature and constitution cannot be overestimated.

By the time an individual attains physical maturity he should be mentally mature also. He should be capable of standing on his own feet, and of creating something new and unique in some sphere of life. Education should help and not hinder the child in this process of self-realization. Unfortunately, however, on account of being mishandled, misguided and mistreated by parents and teachers, our growing young men and women do not attain mental and moral maturity, and remain infantile throughout their life.

Another very important psychological finding in connection with the growth of children, which educators should know, is that from the end of the very first year of life there is a well-marked difference between the growth of boys and of girls. At every marked period of growth girls have been found to be at least 18 months ahead of boys, and they reach puberty about two and a half years sooner than boys. This accounts for girls being able to secure higher position than boys of the same age in school classes. Education of girls should therefore be planned differently from that of boys and finished earlier.

THE THREE STRATA OF THE HUMAN MIND

No educator can afford to neglect the deep and extensive knowledge of human mind and its working which the psychoanalysts have recently given to the world. Dr. Sigmund Freud and his followers have unravelled many a mystery of human behaviour and have been able to cure a number of nervous and mental disorders by their method of psychoanalysis. They tell us that our personality has three strata, namely, Conscious, Fore-conscious and Unconscious, the conscious one being only a small fragment of the total personality. The *conscious* stratum of our personality is that of which we are aware at a particular time. The *Foreconscious* is that stratum which contains those elements of our personality of which we are not aware but of which we can be aware by recalling them. And the *Unconscious* stratum of our personality is that which contains within itself those innumerable elements of our personality of which we cannot be ordinarily aware even by an effort at recalling. We can be aware of the unconscious contents of our personality only by a special technique called psychoanalysis, or when they manifest themselves indirectly and in disguised forms in dreams, neuroses and abnormal mental states. The unconscious is the home of all the urges which find expression in the conscious life of men. When these urges are repressed they retire into the unconscious. The contents of the unconscious affect our conscious life without our knowing it. The unconscious has to be explored and understood before we can hope to bring about desirable changes in the outlook and behaviour of children.

What is not allowed expression in the conscious life of man gets repressed and settled down in the unconscious. Having withdrawn into the unconscious, desires, emotions and ideas tend to form groups, called *complexes*. Like repressed political parties gone underground, the repressed contents create a lot of trouble for the conscious personality. From time to time, they try to express themselves in disguised forms which are little understood by the individual.

It may be pointed out here that although Psychoanalysis has gone much deeper in understanding the various strata of personality than what the orthodox scientific psychology has done, it falls very short of the knowledge of human personality that Theosophy and Hindu Psychology obtained through their own methods of investigation. The theosophical doctrine of the seven Bodies of man¹ and the Hindu theories of the five sheaths

¹ See pp. 26-28, 66-68, 276-283, 288-289, 305-398, 381-383, Vol. I, this Series.—ED.

(*pañchakoshas*) and the three bodies (*sthūla*-gross, *sūkshma*-subtle, and *kāraṇa*-causal) do greater justice to man than the theory of three strata of personality propounded by psychoanalysts.

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THE THRILL OF SELF-EXPLORATION¹

By D. D. KANGA

SELF-EXPLORATION : WHY ?

WE have seen in Introductions to Part I, and shall see further in the monograph on Economics, Part IV, that science alone (knowledge and brains alone) is not enough to solve our present-day problems. A spiritual background is necessary. Along with science we need spiritual strength and many spiritual qualities. Only then will the deadlocks confronting us begin to be solved one after the other. Ethical and spiritual progress has not kept pace with intellectual progress. What is needed is a refinement of human nature, ennoblement of man, a fine character. What is further needed is a change of heart, a change in the mental outlook, a change in the psychological level, in short, an improvement in human relationship. To bring about this inner change in man, he must have a *religion of personal experience, based on self-exploration*.

Why is there no development of character though intellectually we have advanced so much ?

Failure of Old Techniques	The old techniques, scientific and religious training and discipline, have been found to be inadequate to develop character and bring about a change of heart. The scientific training and discipline is good enough to develop powers of observation, reasoning, sound judgment, truthfulness, patience, perseverance, etc., qualities which are of great help in carrying on investigations in the material world but found to be inadequate to refine and ennoble man ; for, a scientist or an intellectual may be proud, egoistic, intolerant, impatient, irritable, peppery, given to fits of temper, callous, greedy, ambitious, taking pleasure in outstripping another, undeterred in exploiting others,
Scientific Training and Discipline, not Adequate	

¹ Read along with this article the monograph on " Man and the Universe ", Vol I, and " Modern Science and the Higher Self ", this Vol.—Ed.

working for self-aggrandizement, not strictly honest and sincere, undetached from himself, though detached from the subject-matter. These weaknesses do not come in the way of his investigations, for these are mainly in the material and objective worlds.

The religious discipline has also failed to bring about a change of heart and refinement of human nature. The best proof of that is the two big wars in less than a generation. When Japan attacked Manchuria, when Italy invaded Abyssinia and Albania, the priests and bishops of the world, instead of rising to a man and protesting against it, simply looked on and did nothing. Orthodox religion is a spent force. Similarly, the members of the League of Nations "were lacking in moral courage and were reluctant to shoulder responsibility for great decisions when greatness was needed".¹

Again, this being an age of science and reason, orthodox religion does not appeal to the modern youth. Going through a certain ceremonial mechanically without understanding, going to the church or temple on certain days of the week in a formal manner, muttering certain prayers in a language one does not understand—these do not appeal to the educated man or woman of the present day. The modern youth does not believe in a *dogmatic religion* when he is asked to do certain things by the priest and not permitted to ask questions why he should do them. The modern youth is not prepared to believe or accept anything or swallow as gospel truth whatever he is told by the priest. He wants to know the *modus operandi* of any ritual or ceremony he is asked to perform. He wishes to have a rational understanding of the fundamental truths given out in religion. If the present-day orthodox priest is not learned enough nor sufficiently spiritually advanced or inspired to satisfy the modern youth in these matters, then the latter loses all faith in religion and becomes a sceptic, an agnostic, a materialist or an atheist. But if the modern youth is shown what *true religion* is and if it is convincingly proved to him that true religion is as much necessary to his spiritual growth as fresh air, water and food are to his physical growth and that without it his outlook on life will be narrow, partial, distorted and perverted, then it is reasonable to hope that he will be induced to reconsider the whole matter over again.

¹ Speech by the President of the Assembly on the occasion of the dissolution of the League of Nations, Geneva, 8th April 1946.

The failure of religious discipline is due to the fact,

1. That the ordinary present-day priest in all faiths has no personal experience of a higher life. Of course, there are always honourable exceptions for whom we have great respect.
2. That a minister of religion who rationalizes religion and destroys its mystical basis cannot have any idea of the inner, bigger spiritual life.
3. That a priest whose outlook on life is materialistic, who eats flesh-foods, revels in alcoholic drinks, and takes pleasure in smoking, a priest whose motto is the very negation of "Simple living and high thinking", cannot be expected to guide modern young men and women to a higher spiritual life.

Failure of Orthodox
Religion

There is, therefore, something missing in the *training* of man himself and in the philosophy of life by which he is guided. These old techniques have failed because they are based on an incomplete concept of man, on an inadequate knowledge regarding his true nature.¹

Man must know what he really is, what his purpose in life is, what his goal and destiny are. In absence of the knowledge of "Whence, How and Whither", he is simply drifting on the ocean of life. He must be like the Captain of a ship who knows the laws of navigation, who knows the direction of the winds, and the location of rocks and eddies and undercurrents hidden in the waters, who has a compass to guide the direction of the ship, and above all who knows the purpose of his journey and his destination; such a man will finish the journey in the shortest possible time.

Man is drifting on
the Ocean of Life

In the light of the terrible experience the world has gone through in the last two wars and in view of the open talk of the possibility of a third world war,² there are many people who feel very despondent and say that human nature is human nature after all and it is impossible to improve it. But human nature can be improved, a change of heart can be brought about, man can be refined and ennobled *only* if he knows what he really is, what his purpose in life is and what his goal, if he knows what this drama of creation and evolution is, and further, if he gets an insight as to what part *he* has to play in this scheme of evolution. Knowing that, he will not drift but take life deliberately in his

Is Change of Heart
Possible?

¹ See Introductions to Part I and the monograph on "Economics", Part IV, this Series.

² When this article was in the Press, a conflict broke out between North and South Korea. If this conflict is not restricted to Korea alone, who knows, it may lead to a world conflagration.

own hands and direct it to a definite goal. Therefore, self-exploration is necessary. But why does not man explore to find out who he is?

Necessity of Self-
Exploration

1. Because he is self-satisfied with the narrow life he is living. There is no hope for liberation in the case of such a person. He is simply marking time.
2. Because he has no real hunger for a wider, higher life.
3. Because he is intellectually slothful and does not want to tax his brain to try to solve the problems facing society. Intellectual slothfulness is worse than bodily slothfulness.
4. Because he is not discontented with the present condition of world affairs.
5. Because he is not anxious to better the society in which he is living.
6. Because he is not adventurous enough to explore his hidden powers and faculties.

"Man contains vast unknown regions. His potentialities are almost inexhaustible".¹

But there is another set of people who are dissatisfied with the aimless sort of life they are living, who are craving for a living spiritual philosophy and a living spiritual faith, who are spiritually fasting, who are like hungry sheep who look up but are not fed, who do not know where to get this spiritual food from.² Intellectual and spiritual discontentment are very hopeful signs and are absolutely necessary for progress and liberation.

What is therefore needed is a new technique of life. What is Needed, a New Technique of Life wanted is not a dogmatic religion which is quite unsuited to the present intellectual age, but a *religion of personal experience, based on self-discovery*.

What is this self-discovery and self-exploration? Let us see.

The thrill of research and the joy of exploration are too deep to be described and are only known by those who have experienced them. There are explorations of different kinds. There is the exploration of the infinitely large and distant heavenly bodies in the vast universe,³ there is the exploration of the infinitesimally small in the subatomic world, there is the exploration of the North and South Poles of the earth, there is the exploration of

The Joy of
Exploration

¹ *Man the Unknown*, by Dr. Alexis Carrel, p. 255.

² *A World Expectant*, by E. A. Wodehouse.

³ *The Universe Around Us*, by James Jeans, 4th Edition, chapters I and II, p. 287.

the depths of the earth and of the deepest oceans, of the peaks of the highest mountains and the inaccessible recesses of the densest jungles. These explorations and many others in the outer world are such as could be done only by specialists. But there is an exploration which every man can make and one which he *has* to make sooner or later whether he likes it or not, for that is his destiny. Constituted as he is he has to explore the microcosmic universe that he is and *this Self-exploration nobody else can do for him*. He has to do it himself in his own unique way that best suits his temperament all the time, for life is dynamic.¹

SELF-EXPLORATION: HOW?

Let man spare a few minutes every day, go to a quiet place in his home or garden or park, on a beach or the bank of a river, on a hillside in beautiful surroundings, or on a golf course, a cricket field or even a battle-field, *relax* himself completely there without straining any part of his body, then withdraw himself and polarize his attention. Let him put the following few questions to himself, brood over them and wait for an answer. If he will exercise sufficient patience and perseverance he will find that the answers are very revealing.

Let him inquire *why* a person who, during his *waking* state, is most miserable on account of a serious loss in business or loss in reputation or loss of a dear relative or friend, or who is most restless and uneasy on account of pain, suffering and fever, is calm and peaceful during the hours that he is *asleep*? What happens to him? What is the nature of consciousness in the waking state and in the sleep state, in the dream and dreamless states and in the trance state? What is the nature of consciousness in hypnotism, multiple personality, insanity, genius, intense mental activity when the physical brain was comatose, etc.?² What is meant again by sleeping over a problem which defies solution in the normal waking consciousness?

Let him ask once more why a person who feels overcome at the thought of climbing a steep hill, or a long flight of steps to a flat without a lift, finds the same task easy and smooth or even forgets that he has come to the end of his journey if he is at the same time deeply engaged in thinking out an intensely interesting problem.

Illustrated by
Examples

¹ See "Methods of Research," Part II, and "The Meaning of Symbols," Part I.

² See "Modern Science and the Higher-Self", this part.—ED.

Once again he may be prompted to inquire why a person who ordinarily grumbles and frets at extremes of temperature in summer and winter forgets all about the temperature when he is reading an interesting and intriguing novel or doing an interesting piece of research or disentangling a difficult problem.

Let him brood over still another question and try to discover whether he is really the person whose reflection he sees in the looking-glass. He knows with certainty that the reflection of himself which he sees in the mirror is not

Who is the Real
Person ?

he. He is able to distinguish between the reflection in the mirror and himself when standing before the mirror. But is it possible that what he considers to be himself may also be a mere reflection of a deeper reality which, though not visible and tangible, may be his true self ?

Let him recall to himself the description given by Plato of a cave,

Plato's Cave

where people are supposed to be sitting with their faces turned towards a wall and their backs towards the mouth of the cave, through which light enters and throws the reflection of the drama of life enacted outside the cave against the wall inside the cave. It is further supposed that the people have their heads and necks chained as it were so that they cannot move them in any other direction. They see on the wall the pictures of people moving about, meeting one another, children playing, traffic moving, processions going, etc., hour after hour, day after day, week after week, for months and years together and suppose that what they see on the wall is real life. They have not the slightest idea that what they see on the wall is a mere reflection of the real life phenomena which are enacted outside the mouth of the cave. They remain under that illusion for their vision is so narrow, like that of a horse with blinkers on his eyes who sees only in one direction. We may imagine one of them, managing by some means, to leave the cave and see the real life phenomena outside. He is then disillusioned and comes to realize that what he supposed to be reality was a mere reflection and the reality outside was a thousand times more glorious than the reflection. But when he came inside the cave to speak to his fellow companions about the true vision he had and tell them that the reality was something else and what they saw on the wall was a very poor imitation of that reality, he would not be believed by them. And if he persisted, they would say, he had gone mad, his brain had become soft.

The talking pictures in their natural colours and in perspective one sees on the flat cinema screen are more vivid and life-like than the pictures on the wall inside the cave described by Plato; but who would now consider these pictures themselves to be realities excepting those who are ignorant of the *modus operandi* of this great art and science of film production.

It does not follow from this that we who are living and carrying on our daily activities on the physical plane are not substantial human beings. The illusion comes in only when we say that we are only body and brain, which are visible and tangible and that *what is visible and tangible in us is the only reality and that what is invisible and intangible does not exist.*

The abstract philosophical method¹ to answer the query "Who am I?" is to explain why there is a struggle between the body which wants to lie in bed for some reason or another and some urge within me to do my duty, to wake up and catch a train or boat, as otherwise I would miss a chance of my life-time. I may succeed or fail in controlling the slothfulness of my body but in either case I understand that I am not the body, for I cannot both be the subject and object at the same time when I say I control my body or I cannot control it, I being the subject, and body being the object.

The feats of an athlete, the yogic physical exercises showing a wonderful control over one's body etc. are other proofs to indicate that the body is only an instrument of the person.

Our earth is undergoing three motions, first, of rotation round its axis (24,000 miles² in 24 hours or 16.6 miles in a minute), second, of revolution round the Sun (18,496 miles per second), and third, along with the sun and the whole solar system, it is proceeding in the direction of the constellation of Lyra (solar motion 12.1 miles per second). Though the earth is whirling in space with these different motions with such tremendous speed, we do not feel that at all. Why is it so? Now, let us imagine ourselves leaving the earth in [an aeroplane and going to a great height, beyond the gravitation of the earth and then observing the earth from there

¹ Read "The Story of the Soul" by Jean Delaire, *The Theosophist*, March 1943. This point is beautifully brought out there.

² Circumference of the earth—Ed.

through a powerful telescope. We shall then notice that the earth is moving with a tremendous motion. Why this difference? In the first case, we were *attached* to the earth, were part and parcel of the earth and so we did not feel that the earth was moving. In the second case, we became *detached* from the earth and so we observed the tremendous speed with which the earth was whirling into space.

Mind

Similarly, when we identify ourselves with our mind, when we think that we are the mind, then we are not aware of its separate existence : but the moment we become detached from the mind by making an effort to concentrate it on a subject uncongenial to it, we find that our mind begins to wander and likes to dwell on a subject in which it is more interested. Becoming conscious of this fact, we try to bring it back to the subject on which we wish it to be concentrated. This very struggle between the mind and something within, either to control it, or be controlled by it if we are weak, shows that we are different from the mind, that we are not the mind.

When I speak of controlling, conquering or transcending something, I thereby imply the duality of subject and object. I control my body, my desires, my mind, I am therefore not that which I can master or control or transcend. I am more than all these. I am something beyond body and mind. I am *That*. That is my real self.

This little self-exploration and moreover the findings of the modern science of psycho-physiology and meta-psychology show that man is more than his body and mind. This dual concept of man requires to be replaced by the triune

Or Something
More ?

concept, of man being body, mind and something more. Call it by whatever name we like. That something is the real man, the reality, and that body and mind are merely its instruments.

This does not mean that man should ignore his body and mind. Not by any means. It only means that body and mind must be given their proper places in man's constitution, in the scheme of evolution; otherwise, evolution goes awry.¹

The gift of mind is the greatest gift given to man and it is that which distinguishes him from the lower creation. But it should not be forgotten that mind is of the greatest help to man, *only when it is under his control and when it is a purified mind*. This means that when it occupies a second place

A Purified and Self-
controlled Mind

¹ See General Introduction to the Second Edition.

in the constitution of man. The inner man should be the real ruler and not the mind. "The Mind is the slayer of the Real" says H. P. Blavatsky. Mind like fire is a good servant but a bad master. When mind rules the man or the universe then evolution does not proceed smoothly. An analysis of the present world situation will corroborate this view, for the present is a mind-dominated world.

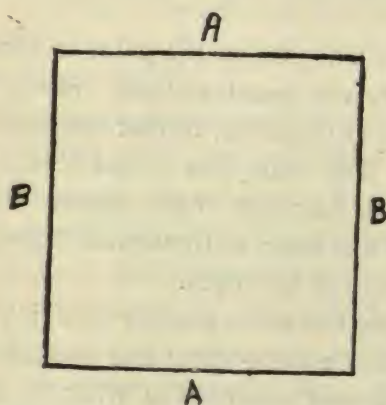
The present, again, is a transitional and necessary phase in the evolution of man's consciousness. It has for its object the building of man's individuality. Once that stage is reached it should be immediately outgrown. The present phase of civilization is that phase. It is high time now that man should outgrow that stage. Otherwise his outlook on life will always be very narrow, partial, stunted, restricted, distorted, perverted. He will not be able to have a comprehensive view of anything, he will not be able to give right values to all things. Consequently, he will not be able to solve the problems facing him and society.

This is the age of the aeroplane. The time has arrived when the mind of man must cease to crawl on the earth like the caterpillar but rise into the aerial and ethereal layers of consciousness. Science has brought man to the chrysalis stage when he questions and challenges not only the world without, but also the world within himself, as to what he is, and what is his destiny. Only by brooding in the innermost recesses of his being will he discover himself and gather the strength to burst through the cocoon of the lower mind, and on the wings of his imagination soar free and strong into the finer and fresher regions of the mental atmosphere.

Let man withdraw into the silence of his being and touch that deeper level of consciousness which gives peace that is enduring and power that makes all things new, thus enabling him to see the world from that higher dimension which affords a deeper insight into the problems of life. Let him make use of this higher consciousness and soar, as the butterfly now soars, with the aid of the new mechanism of wings acquired in the chrysalis stage. It is the same life-energy in both the caterpillar and the butterfly; the capacity to fly is due to the new instrument.

A Simple
Experiment

Let man verify this spiritual experience by making the following simple experiment. Let him try to get four equal equilateral triangles from six rods of equal length, the length of each side of the triangle being the length of the rod, by arranging them in any way he likes. If he tries to arrange them on a *plane* surface he will never succeed in solving this problem, however long he may try. But if he uses his highest reason or has a flash of intuition and follows a new technique by making use of a higher dimension, to arrange the six rods in *space* in the form of a triangular pyramid, the problem is immediately solved. (See diagram.)

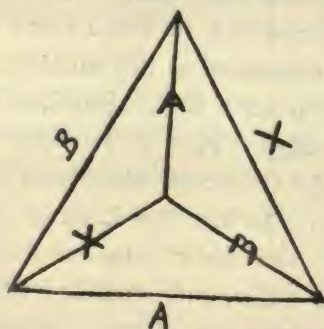


OLD TECHNIQUE

DUAL CONCEPT

PARTIAL VIEW

SURFACE VIEW



NEW TECHNIQUE

TRIUNE CONCEPT

WHOLE VIEW

AEROPLANE VIEW

A

B

X

BODY

MIND

THE THIRD FACTOR

DIAGRAM to show the difference between the old and new techniques.

Superficial View
of Life

We are not able to solve our problems at present because we are following the old technique and taking only a superficial view of life, a dual and therefore an incomplete concept of man. But if we take *an aeroplanic view of life*, without ignoring any important factors, by touching a deeper chord in our consciousness, by taking a triune and therefore a more comprehensive concept of man, we shall be able to see the happenings of life's events in their proper perspective and hence arrive at more satisfactory solutions. We shall also feel stronger and more confident to deal with the problems as they arise.

Perhaps the following story may further clarify the point we are discussing :

There was a lioness who was on the point of becoming a mother. Being hungry, she left her cave in search of food. Seeing a flock of sheep going she pounced upon one of them, but in that very act died after giving birth to a beautiful cub. The little lion found himself in the midst of the flock of sheep, grew up amongst them, moved about with them, played with them, bleated like them and imagined himself to be a sheep, for he was absolutely unaware of his origin.

Now there came upon the scene another lion. He was not hungry ; so, he watched the young lion moving about and playing with the flock of sheep from a distance and was surprised at what he saw. The young lion, whom we shall call Leo, now approached the other lion, whom we shall call simply the 'Lion', and they met. "Do you know who you are ?", asked the Lion, Leo answered, he was a sheep and bleated like a sheep. The Lion felt much distressed at this answer and behaviour and told him that he was not a sheep but a lion. But Leo was not convinced and bleated once again like a sheep. How to convince Leo that he was a cub of the King of Forests and that royal blood was flowing through his veins, was a difficult problem. At last the Lion hit upon an idea. He took Leo to the nearest lake, the water whereof was crystal clear and showed their reflections in the water, and explained what they meant and then asked, "Now tell me, whether you resemble more me or the flock of sheep over there". Leo looked at the reflections, then at the Lion and finally at the sheep and answered that he did not resemble the sheep but him. Then the Lion said: "Did I not tell you that you were a lion and not a sheep. Are you convinced now? And do you know how a lion roars?" The Lion then roared and asked Leo to do the same. Being

convinced that he was a lion and, not a sheep, he roared and with that he got all the strength and dignity and greatness of the lion. Henceforward he did not feel helpless like a sheep and did not know what fear was. His behaviour changed completely.

Most of us human beings are behaving like sheep and feel as helpless as the sheep and do not know how to face life's problems but run away from them, for, we suppose that we are mere body and brain, or body and concrete, logical, analytical mind. We have forgotten our divine origin that we are immortal spirits, fragments of Divinity, making use of body and mind as our instruments. If we are convinced that we are more than mind and body, then we would bring all our spiritual qualities into play and have a spiritual background to all our thoughts, emotions and actions. We shall then be in a position to restore order in the present chaotic condition of the world.

Let us imagine ourselves travelling in a train, with its doors and windows on opposite sides. Now suppose we look out through one window. We see and admire the scenery ; we see through that window but situated as we are in the compartment it is physically impossible for us to know what kind of scenery our eyes will meet with when they look out through the window opposite and further, we cannot see the scenery which the driver in front of the train and the guard behind it, see. But now imagine our leaving the train, journeying by an aeroplane and looking below on the same district from a certain height. What is our experience ?

Our breadth of vision suddenly expands to enormous proportions. We are able to see at the same time the scenery all around, north, south, east, and west of the direction of the train. What a wide extensive and comprehensive view we are able to have *at once* ! What a great expansion we experience in our consciousness, for we are literally having an aeroplanic view of the district below.

Similarly, if we open the doors and windows of our mind and at the same time try to go to deeper and deeper layers of our consciousness in our meditation, we will be having an aeroplanic view of life as it were, which will enable us to trace connections and relations between things and persons which it would not be possible for us to do when we are functioning on a lower level of consciousness. This will help us to *think clearly* which it was not possible for us to do when we had a very restricted, and therefore distorted vision.

We must achieve a synthetic view of life before we can understand the many complicated problems confronting us. We must have the view of the architect, who sees the plan of the complete edifice, who knows the relationships of one part to the other, and of all parts to the whole. The majority of humanity see only a line, or a single step and not even the staircase which would lead them from the groundfloor to the higher stories of the edifice.

The View of the
Architect

Analogy from
Science

Perhaps an illustration from science will help us to understand the *modus operandi* of our consciousness at different levels a little more clearly and give us greater confidence in the importance of the new technique advocated here. Just as energy, passing through different media, manifests itself in different forms such as motion, heat, light, sound, electricity, magnetism, so life-energy (consciousness) shows different characteristics as it functions through levels of the different planes of matter.¹ A glance at the diagrams will show the superiority of the intellectual force over the muscular force, and of the soul force over either of them. By the expenditure of the same amount of force in different media we get different results. The finer the matter in which a force functions, the bigger and quicker the result and the more easily it is obtained. Take, for example, the force used in trying to move a boat which is stranded on a shore and the same force used in moving the same boat when it is floating on water; in the first case, we are not able to move the boat at all while in the second, we can take it to any distance we like. Similarly, when our consciousness is focussed in the finer matter of a higher plane it yields far bigger results than what it would do if it were focussed in a relatively coarser matter of a lower plane.²

Muscular Force,
Intellectual Force,
Soul Force

Now we will understand the significance of the episode between Tennyson and Wordsworth. One winter evening, Tennyson was sitting alone in his own little drawing room with fires burning bright when Wordsworth called on him. Both shook hands, warmly greeted each other and then seated

Tennyson and
Wordsworth

¹ See diagrams in "Chemistry", Part II and "The Old Order Changeth, yielding Place to New", Part IV.

² This point is further elaborated in the monograph on "The Joy of Self-Unfoldment". See also pp. 185-187, Vol. I, this Series.—ED.

themselves in two comfortable chairs which one usually finds in an English home. They spent one hour together but without exchanging a single word; Wordsworth then got up to leave. Both once again warmly greeted each other and said they had a most happy and enjoyable time together and then parted. A person living only on the lower mental plane cannot understand how these two great poets could have had an enjoyable time without exchanging a single word. That is a mystery he should try to probe. That he can do by going into the silence of his being, beyond the mind level.¹ Let him try.

We should have a correct estimate of the relative values of things.

Right Sense of
Values

In the light of the knowledge and insight we have gained above we shall now begin to understand why we should give a secondary place to the ideal for the possession of

material goods and a place of primary importance to the ideal for the possession of intellectual, artistic and spiritual wealth. For wherever the former is the ideal, it leads to competition and combat for the simple reason that material goods perish in the using and diminish by sharing and wherever the latter is the ideal, it leads to peace, joy and happiness, for the simple reason that intellectual, artistic and spiritual wealth does not perish in the using but on the other hand increases manifold in the sharing.

"This is the fundamental reason why progress towards peace and contentment must be towards intellectually artistic development and spiritual life, and not towards material splendour and vulgarity of outer ostentation".—ANNIE BESANT.

We are passing through strange and unique times. Great epoch-

Rush and Hurry

making events which would ordinarily have happened in the course of centuries are now taking place before

our very eyes in as many years or sometimes in as many months. We are living in a world of rapid change, a world of hurry, rush, bustle, noise, nervous over-strain and high-pressure work. As if this were not enough we are living in a world of mistrust and suspicion, of constant fear and dread of war. There is no time to think over the deeper problems of life, and there is no calm and peaceful atmosphere in the life of man either

Nervous Overstrain

at home or in the outside world. Rush and hurry, hurry and rush seem to be the chief features of modern civiliza-

tion. Caught in the grip of such a life, week in and week out, month

¹ See p. 41, Vol. I, this Series.—ED.

in and month out, for years together, how can a man be truly happy, how can he be expected to solve the problems facing him?

In the light of our present study may we hope that those responsible

New Cities

for the building of new cities in the new civilization which is arising on the ashes of the old, will bear in

mind the need of having simple, beautiful, quiet centres of solitude interspersed at different places, where persons after a strenuous time in office or factory, business centre or a court of law, could go to enjoy the calm and peaceful atmosphere of the place and satisfy the cravings of their soul. For, it should be remembered, as we have already seen in what

Necessity of quiet
Centres of Solitude

has gone before, that man by nature is an explorer and feels the necessity of having such quiet resorts where he might explore the vast universe within him and find

out for himself that the joy which he feels in such self-exploration is so deep that the ordinary things of life in which he used to take pleasure—the pleasures of the senses and the lower mind—now recede into the background and lose their grip over him. He will then assign them their proper place, for he has now had a glimpse of the deeper layers of consciousness which he is eager to explore thoroughly. By exploring this

Right Adjustment

field he enters the region of the science of Life. All

those problems which once loomed large before him will now fall into due perspective in the light of his deeper understanding of the laws of life. This Self-exploration will help him to bring about a right adjustment between himself and society or the state and thus indirectly be the means of solving not only his own problems but the world problems as well, which like his own, are mostly due to maladjustment.

He now begins to understand that living a worldly life means

Worldly Life is
Partial Life

simply living a very narrow, partial, incomplete life, and that living a spiritual life means nothing less than living a whole life, a larger, wider, deeper life, a higher and

fuller life than what the ordinary worldly man is living. Shall we remember

Spiritual Life is
Whole Life

that wholeness is holiness, perfection, nobility, culture, refinement, and that the living of such a large, noble, refined life is possible for everyone of us *here and now*,

for we are not a mere mass of flesh, blood, bone and muscles, but are

And is possible
Here and Now

immortal, eternal spirits, fragments of the divine, Gods in the making, with all the potentialities of God

Omnipotent, Omniscient and Omnipresent.

Let us remember the following Three Great Truths which are absolute¹:

1. "The soul of man is immortal, and its future is the future of a thing whose growth and splendour has no limit.
2. "The principle which gives life dwells in us, and without us, is undying and eternally beneficent, is not heard or seen, or smelt, but is perceived by the man who desires perception.
3. "Each man is his own absolute law-giver, the dispenser of glory or gloom to himself, the decreer of his life, his reward, his punishment".

¹ *Light on the Path*, written down by M. C., p. 24.

YOGA

BY SWAMI SIVANANDA SARASWATI

SALUTATIONS and worshipful obeisance to Yogeswar Sri Krishna and Yogeswar Lord Siva, Patanjali Maharshi, Vyasa, and to all other Rishis and Yogins who are blazing suns of Yogic light and knowledge that effectively destroy the dense darkness of Ignorance.

Man's life in this universe is in the nature of a restless quest and adventure. Caught amidst the play of mysterious forces and brought face to face with bewildering phenomena, man struggles to understand and strives to overcome them. In this incessant drama of Life one factor emerges clearly, namely, that all his endeavours and attempts have a single definite aim. Man wishes to obtain happiness and freedom from limitations. He seeks to avoid that which is painful, unpleasant and binding. Yoga-sastra constitutes the most successful and at the same time rational solution of this twofold problem of quest and struggle. It unerringly leads up to a speedy consummation of man's quest after the ideal by helping him to obtain victorious mastery over all forces that obstruct him in the quest.

At the back of the two ever fluctuating and changing factors of Man and Nature, is a constant unchanging immutable entity, God, who forms their eternal substratum and source. He is the Supreme Truth, the ultimate Transcendent Reality, the one undivided absolute Existence-Knowledge-Bliss.

The entire creation is a process of the One becoming the many, of the Transcendent becoming manifest and immanent. All phenomena arise out of, subsist in, and subside into that undivided infinite Ocean of pure Consciousness. They are, as it were, an expiration and inspiration of the Supreme Being. As countless million wavelets develop, dance and dissolve on the bosom of the ocean, when manifestation begins, infinite beings stream forth out of the ONE and involve into the countless forms of life we see in this universe. From here starts the steady onward march of Evolution by which the individual souls merge once

more into their Primal Source. This is the Cycle of immanation, ✓
involution and evolution, the Cosmic Plan according to the Divine Will.

The human Soul, being in fact a part and parcel of the Infinite
The Soul's Quest Existence, is in its essential nature identical with it.
Being set awirling in this cycle of the world-process,
veiled from the knowledge of its essential Divinity and its Consciousness
severely limited by the encasing sheaths of Matter, the Jiva ever seeks
to put an end to this separation, limitation and the sense of incompleteness
that it feels. Through successive incarnations, its life constitutes a
constant reaching forth towards its Primal Abode of Infinite, Immortal,
Blissful Existence and until that state is attained, each centre of indi-
vidualized Ego-consciousness will keep up this restless quest on the
upward path of evolution. The theory and practice of Yoga therefore rose
out of practical necessity. It came into being in answer to the most
vital need of Man. Through every moment Humanity as a whole is
inevitably and irresistibly being drawn up towards that Ideal State of
Perfect Existence.

Yoga is this cosmic process deliberately systematized, regu- ✓
lated, intensified and thus expedited to an incredible degree. The
latter is the reason why many of the natural developments of the Yogic
process appear as miracles in the eyes of the surface observer. Thus
the natural, unhurried, protracted process of evolution upon the cosmic
scale is developed as the exact, scientific technique of Yoga-sastra.
In this broadest aspect therefore, any movement, any activity that con-
sciously or unconsciously tends upwards and is evolutionary may be re-
garded as yogic. Everything that helps to disentangle the Jiva from the
phenomenal world of sense objects and links it with the Absolute is in
effect Yoga. But for all practical purposes, the ancients formulated and
built up certain well-defined workable methods by which Man can establish
union with the Divine. It is a means of compressing one's evolution within ✓
a single life-time, even within a few years of this particular life.

Of the numerous methods, those that are widely accepted and
The Methods followed are the paths of Jnāna Yoga, Bhakti Yoga,
Karma Yoga, Hatha Yoga, Raja Yoga, Laya Yoga and
Mantra Yoga. But particularly it is the path of Dhyāna, the highly
scientific, practical, graduated system of Maharshi Patanjali, Ashtanga
Yoga, that is by convention referred to by the term Yoga. The reason for
this unique importance is that Patanjali Maharshi's System is based upon

the most rationally all-comprehensive consideration of man in every aspect of his being. It has taken man as he is constituted fundamentally, divested of incidental association. It takes man as a centre of pure consciousness, localized within enfolding sheaths of matter of varying degrees of subtlety. Conceived in this light, man is the same the world over in all periods of time. This system is the universal one and is for all times, and offers a process that is practicable to every type of the average individual. It is characterized by the most intelligent synthesis and a very beautiful graduation.

Discoveries of science are never ultimately reliable, because the instruments and apparatus aiding its research are ever changing. They are imperfect as they are conceived out of the fickle mind with all its numerous limitations. Each theory, each discovery, that is put forward one day is contradicted and falsified by a fresh one the next day. The realizations arrived at through Yoga are infallible as they are the direct perceptions with the highest instrument, namely, the purified mind attuned to the infinite. Therefore, Raja Yoga has never changed, neither has it been contradicted. Its findings have been corroborated time and again by its practitioners in the succeeding centuries.

Science perceives things as they appear to normal human perception, i.e., as they *appear to be*, whereas the Yogi perceives them as they *actually are*.¹ Rather he knows them in their essential state. He knows them as Tattvas through his insight. This is Aparoksha Drishti or intuitive perception.

Man is not a mere physical being nor does he live and act upon this plane alone. Most of the ills of the modern age are the outcome of ignoring this fact. The modern age has concerned itself almost entirely with the physical aspect of man and concentrated its energies in its glorification. The pursuit of sense-pleasures, gross and subtle, has become its predominant aim. The acquisition of money (that enables us to procure sense gratification) is the aim of the individual. Such a race after wealth has inevitably resulted in intensification of selfishness, exploitation of the weak, fierce competition among equals, hatred and strife between one class and another.

Through nearly twenty centuries and more, persistent attempts have been made to build up a civilization superior to those of the past. Various arts were mastered. Continuous research and countless discoveries were made. Despite ambitious designs and admirable achievements

¹ See A Note on Occult Chemistry, p. 330, Vol. I, this Series.—Ed.

upon the purely physical plane, it is seen today to be an inglorious failure.¹ Western world, where civilization and advancement has reached its highest point, presents a drama of unprecedented human slaughter, a scene of destruction and desolation, an atmosphere filled with dark hatred, greed, falsehood, lust and cruelty. Utter chaos and confusion reign everywhere.

The philosophy of Yoga presents the path out of this bloody maze. Yoga is the science that throws light upon the obscure workings of man's inner nature, wherefrom arise the constructive and destructive tendencies in man. Rightly understood, Yoga offers a solution to all the present problems. It teaches man that trying to get happiness from the external world is the first blunder he has to correct. Outside objects can never give happiness. Happiness is within. It is the essential nature of man's innermost self. Therefore, man has to give up his desire for sensual objects by checking the innate propensity of the mind to reach out sensewards. Thus withdrawn, all the rays of the mind are to be united and directed inward upon the Self. When such concentration becomes perfect and deepens, successive layers of his consciousness are pierced and he obtains direct experience of his essential nature, that is perfect Bliss. This procedure presents numerous extraordinary difficulties.

The conception of Yoga is as ancient as the dawn of creation. It seems to have existed prior even to the advent of man. In its fundamental aspect as union with the eternal infinite existence, as blissful Self-communion, it is mentioned with reference to the supreme deity. Bhagavan Adinarayana, reclining upon the thousand-headed Mahashesha is described as being in a state of Yoga Nidra. The earliest Seers who realized the Truth have explained the cosmic process as the work of Maya, the inscrutable power of the Supreme Spirit. By the mysterious operation of this veiling power, the Undivided Absolute Blissful One is made to reflect itself in an infinite multiplicity of names and forms. As described in verse 6, Chap. IV of Gita, Maya brings about this phenomenal existence with its duality and diversity. Each centre of consciousness thus involved from the Infinite has therefore to transcend Maya to realize its essential identity with the Supreme Being.

Now Maya is the eternal negation as distinguished from the Ultimate Reality that shines as the eternal "I AM", the Eternal "SAT". Maya is used to denote the sum total of the forces of negativity. Nescience, oscillation, delusion,

¹ See pp. xxxv—xl, Vol. I, this Series.—Ed.

attachment, egoism, disharmony and discord, and sensuality are some of the prominent forms in which it finds expression upon the human plane. Yoga then concerns itself in enabling the individual to deal effectively with and overcome the above factors that keep him pinned down to the phenomenal existence. A state of knowledge through a constant discrimination between the real and the unreal combined with a ceaseless assertion of and identification with the ideas of omniscience and perfection, a state of unshakable equilibrium and one-pointedness, non-attachment to everything mundane coupled with an intense unabated attachment to some particular aspect of the Divine, a complete self-effacement and active selflessness, constitute therefore the major means of obtaining a victory over Maya. A determined development along any one or more of these lines broadly goes to form the paths of knowledge, occult meditation, devotion or divine love and selfless action.

The process of Yoga embodies an ascent into purity, into that absolute perfection, which is the original state of man. It implies therefore the removal of the enveloping impurities, the stilling of the discordant vibratory tempo of the lower Koshas¹ and the establishment of a state of perfect balance and harmony.

Now all the above mentioned factors that bind down the Jiva may be seen to be operating upon a larger scale through humanity as a whole. The present age is enmeshed in ignorance, characterized by restlessness, a blind clinging to earthly existence, a perverted individualism and voluptuous abandonment to pleasures of the flesh, and violence, strife and discord in all walks of life.

The modern age is a machine age. As such, it is power-ridden. Discovery of newer ways of generating power, exploiting fresh aspects of known forces, inventing machine to make machine, is the present craze. Science has placed an unprecedented variety of forces under man's control but man himself does not have his senses and his mind under his control. This has resulted in the misuse and abuse of the fruits of civilization and science, because all power corrupts.² The adoption of the Yogic way of life is the release from and the guarantee against such abuse of power and the resultant disaster. Training in Yoga brings to man several supernatural powers that no machine can ever generate. Yet the discipline laid down on the path guards against their abuse.

¹ Koshas—Sheaths

² See p. xxxvi. Vol. I. this Series.—ED.

All methods of Yoga have ethical training and moral perfection as their basis. The eradication of vices and the development of certain virtues form the first step in the ladder of Yoga. The disciplining of your nature and the formation of a steady and pure character through a set of right habits and regular daily observances is the next step. This is Yama and Niyama in Raja Yoga. The acquiring of Sādhana Chathushtaya by the neophyte on the path of knowledge, and the insistence upon Shraddha¹, Sadachara² and Self-consecration, desirelessness and sacrifice for the devotee and the Karma Yogis have as their aim the development of character and ethical perfection. Thus the ringing in of a new world order of love and sacrifice, of co-operation and brotherhood and the realization of the ideals of moral perfection can be effected by a willing unreserved allegiance to even the initial stages of Yoga. Upon this firm foundation of a well-established and virtuous moral character is built the further structure of Yoga. The inherent restlessness of the mind constitutes the greatest problem to the follower of Yoga. By its very nature mind is ever outgoing. Also it is always unsteady. The resolute turning away from earthly attachment, the determined effacement of the ego, deliberate stoppage of all inharmonious mental processes and the constant dwelling upon a single idea, all these methods require a firm control of the mind and the conscious direction of its powers towards the desired end.

Thought is the greatest force on earth. Thought is the most powerful weapon in the armoury of a Yogi. Constructive thought transforms, renews and builds up. Destructive thought disintegrates, harms, and reacts harmfully upon the thinker. Positive thinking rejuvenates and imparts strength and power. Negative thought stunts personality and stifles all efforts. It kills initiative. Pure thoughts lift man to the status of Divinity. Impure and base thoughts vitiate the entire atmosphere. The far-reaching possibilities of this force were most accurately evaluated by the ancients who developed it to perfection and put it to the highest possible use.

For thought is the primal force at the origin and back of all creation ; the genesis of the entire phenomenal creation is given as a single thought that arose in the Cosmic Mind. The world is the Primal Idea made manifest. This FIRST THOUGHT became manifest as a vibration issuing from the eternal Stillness of the Divine Essence. This is

¹ Shraddha—Faith

² Sadachara—Right conduct

the reference in classic terminology to the Ichcha¹ of the Hiranyagarbha² that originates as a Spandan or vibration. This vibration is nothing like the 'rapid oscillation to and fro' of physical particles, but is something infinitely subtle, so subtle as to be even inconceivable to the normal mind. But this has made it clear that all forces are ultimately resolvable into a state of pure vibration. Modern Science also has now arrived at this conclusion after its prolonged researches in external physical nature.

Careful reflection will show that the entire universe is in reality the projection of the human mind. Mind in its aspect as the Ego principle perceives phenomena. The moment mind ceases to function, the universe disappears. The

The Mysterious
Mind

scientist with his solid sense of reality regarding the material universe, has to bestow careful thought upon the relation between the mind and the universe. The moment he gets into bed, switches off the light and sinks into sound sleep, his laboratory vanishes into nothingness, all apparatus disappear and even the atom ceases to exist. The entire universe is non-existent in effect, until mind starts to function once again with the return of waking consciousness. Thus all perception and sensation do exist with mind. With the cessation of its functioning by itself or through deliberate effort and discipline the phenomenal world vanishes from our experience. Thus has it been said 'Mano Mātra Jagat'. The world is only the mind. The central aim of all Yoga is therefore purification and control of the mind. Now mind in itself is but a record of impressions that keep expressing themselves ceaselessly as impulses and thoughts. The Mind is what the mind does. Thought impels you to action. Activity creates fresh impressions in the mind-stuff. Yoga strikes at the very root of this vicious circle by a method of effectively inhibiting the functions of the mind. Yoga checks, controls and stops the root function of the mind, i.e., thought.

The Mind functions in the three-fold aspect of thought, emotion and will. The three paths, Raja Yoga, Bhakti Yoga and Jñāna Yoga proceed through the purification and training of thought, emotion and will respectively. It is Raja Yoga, however, that directly starts with the mind. It is an exact science concerning itself mainly with the control and ultimate suppression of all the modifications of the mind. The mind being the

¹ Ichcha—Desire

² Hiranyagarbha (Sans. The Golden Egg)—1. Brahmā. 2. The Cosmic Soul as the creative energy arising from desire.

cause of the existence of the phenomenal world, when purified and controlled, will eventually lead the Yogic practitioner to the highest goal, viz. A-sampra-jñata Samadhi, where he rests in complete union with the Supreme Spirit.

The grossest external manifestation of the mental impulse is physical actions. Actions when repeated crystallize into habits. ✓
 The Ascending Rungs In course of time, habits through indulgence get incorporated as definite traits in the individual's personality.

The plan of Yogic Science, in obtaining mastery over the mind, proceeds step by step most systematically, regulating and controlling first the grosser and then the subtler manifestations. *Yama* overcomes all vice and implants virtue. It weeds out evil traits and implants godly qualities. *Niyama* regulates the habits and aims at giving the Sādhak mastery over his behaviour. Instead of being a slave to habits, the aspirant now controls his conduct and develops certain habits by determined will. Next the inherent urge to activity is checked through ĀSANOLOGY. By the practice of a system of steady postures, the tendency to unrestrained and aimless movements is curbed and overcome. Character developed, ennobling traits acquired, old habits overcome and replaced by new ones, activity regulated and checked, now the vagaries of the mind are next restrained by a control of its counterpart, namely, the breath. This stage is PRĀNAYĀMA. Though thoughts are checked, the mind yet continues to agitate in the form of desires and craving. Thus the fifth limb of Yoga is the withdrawal of all the centrifugal senseward movements of the desire element in the mind. Turning away from the external world and withdrawing the senses from the objects, PRATYĀHĀRA paves the way for the sixth rung in the Yogic ladder, DHĀRANA or concentration of the mind at a single point. The indrawn mind is made to fix upon any one given idea or image technically referred to as the Lakshya or object of MEDITATION. Dhāraṇa deepened and lengthened becomes MEDITATION. When DHYĀNA is intensified and made continuous SAMĀDHI results. A state of blissful union with the Infinite Spirit, the Oversoul, frees him from the fetters of desires and pains and releases him for ever from the thralldom of birth and death. This transcendental experience makes him transformed, a being endowed with a cosmic vision beholding everywhere a Divine unity behind apparent diversity. Henceforth his entire life becomes a spontaneous expression of the unhindered flow of the Supreme Energy through every act. He lives

and acts purely for the welfare of all Humanity, carrying on the Divine Plan to its glorious consummation. •

Just like any achievement worth the while, the practice of mental control and concentration also demands an abundance of energy and nerve-power on the part of the student of Yoga. To this end a careful control over the sex impulse and the preservation of one's vitality becomes a necessity. The insistence upon Brahmacharya or celibacy can be understood as a sane and intelligent measure voluntarily adopted to ensure the preservation of the power so very necessary in your effort at developing your higher faculties. Further, there is an intimate vital inter-relation between the mind and the vital energy. Control of one automatically leads to and facilitates the control of the other. It is neither mere misogamy nor an eccentric perversity. It is rational self-control. No harmful or queer complex will result from observing celibacy if it is done intelligently and with common sense.

The Yogi investigator has been thorough in his research into his subject. With the shrewdest common sense and the deepest wisdom, he has seen that repression and forced abstinence is not the rational method. That has not been his aim. He has successfully perfected a method of transforming the gross seminal energy into a refined subtle force through a process of sex sublimation. Through a marvellous system of Āsanas,¹ Mudras² and Bandhas³ expounded in the science of Hatha Yoga, the powerful sex-energy is controlled, converted, and conserved. The energy thus conserved shines in the practitioner as Tejas. It has to be maintained in a state of beautiful balance and harmony. The body has to become an ideal instrument for the reception of the higher spiritual currents of meditation. All disease and disharmony should be eliminated. This is effectively achieved through the power generated by the observance of celibacy. It is only when sex is repressed outwardly and physically, but is indulged in by unnatural ways that untoward consequences follow. The much-feared complexes are not the result of true brahmacharya, but due to apparent external abstinence accompanied by subtler forms of gratification.

The intimate connection and the mutual interaction between the body and the mind was recognized by the Yogi. Thus the control and

¹ Āsanas—Postures

² Mudras—Certain positions of fingers in religious worship

³ Bandha—Bondage

training of the body come to be an important part of Yoga. So greatly did the Yogis feel the importance of this aspect that it has developed into a separate science by itself.

Steadiness of body tends to aid the steadying of the mind. Mind is directly influenced by the body. Therefore, the appetites of the physical are to be controlled. The nature of its food is strictly regulated. Chemical components of different articles vibrate at varying rates. The intake of certain foods sets up discordant vibrations in the physical body. This throws the mind stuff into a state of oscillation and disequilibrium. Concentration is disturbed. High thinking is rendered difficult, because elevating thoughts imply fine vibrations. Purity of food is therefore an invariable adjunct to Āsan practice and to progress in Yoga.

Overloading the stomach, work that produces fatigue or overwork, too much talking, taking heavy food at night, too much mixing with people are all obstacles in the path of Yoga. You should not practice Yoga when you are suffering from dyspepsia, sour-belching, vomiting, diarrhoea or any other disease ; also when you are too much depressed or fatigued.

The practice of Āsanas controls the emotions, produces mental peace, distributes Prāna evenly throughout the body and its different systems, helps in maintaining a healthy functioning of the internal organs and gives internal massage to the various abdominal organs. Physical exercise draws the Prāna (energy) out but the Āsanas send the Prāna in. The practice of Āsanas cures many diseases and awakens Kundalinī Shakti. These are the chief advantages in the Yogic system of exercises which no other systems have.

The physical part being purified, controlled and harmonized, the next objective becomes the establishment of harmony in the subtle Prānic sheath. Man's vital energy, Prāna and Mind are the triple aspects of the same force. Perfect control of any one of these renders easy the subjugation of the other two. Nay, they automatically follow.

Prāna is externally manifest as breath. When breath is controlled Prāna is controlled. Therefore, the regulation of breath is employed as a means to gradually gain control over the Prāna-maya Kosha.

There is neither rhythm nor harmony in the breathing of wordly-minded persons. A Yogi practises regulation of breath and establishes harmony. When the breath is regulated, when there is harmony, the breath will be moving within the nostrils. The fruit of regulation of breath is Kumbhak or retention

Chemistry of Food
and Thought

Practice of
Prānayāma

of breath. The breath stops by itself. Kevala Kumbhak follows. Mind becomes quite steady and Samādhi supervenes. Regulation of breath and Kumbhak are of great help in the practice of concentration and meditation.

The practice of Prāṇayāma has great influence over the body, mind, intellect and the senses. It removes diseases of the body and renovates the cells, tissues and nerves. It supplies abundant fresh energy to the body. It steadies the mind. It removes the impurities of the mind also. It strengthens the intellect and augments the intellectual capacity. It increases the power of memory. It calms the turbulent senses. It checks their outgoing tendencies.

Prāṇayāma is a great help not only to Hatha Yogins but also to Raja Yogins and Vedantins as it steadies the mind. A Vedantic student who is in the habit of meditating on OM with Bhav will actually think of Atma always even while practising prāṇayāma and concentrate on the blissful Self. A Raja Yogin will concentrate on that special Purusha or Ishwar. A Hatha Yogin will concentrate on Kundalini Shakti in the lower psychic centres and try to feel that the Muladhara is purified and opened up and Kundalini is moving towards Swadhistan.

The vibrations of Prāṇa and Vāsanā are the two seeds for the tree of mind. Should either of them perish, both die soon. Prāṇa vibrates and the mind is set in motion. If you control the Prāṇa through regular practice of Prāṇayāma, the mind will be caught easily. Through discrimination, Vichār and Samyak-drishti,¹ you can destroy all Vāsanās.

The human body is the copy of the cosmic structure in miniature and prāṇa enlivens and animates the organism. Each several element has gone into its constitution. The key force behind all forces of nature is Prāṇa. Prāṇa is the manifest essence of all the forces that exist. The Cerebro-spinal system forms man's subtle switch-board. The different subtle psychic centres dominate particular elements of forces in nature. By gaining mastery over the vital astral centres located therein, man obtains control over all forces of nature.

Herein we have an unparalleled instance of the most marvellous human economy ever perfected. What the Engineer and the Scientist of today strive to do through gigantic projects with prodigious output of manpower, money and material, the Yogic method effectively achieves with the utmost vital

Prāṇa is the Universal Key-force

¹ Samyak-drishti—The capacity to see truth.

economy and a technique ruled by a surprisingly simple logic. This is what makes the difference between a Christ and a Canute. The former stills the tossing waves of stormy waters with a single motion of his hand whereas the mighty monarch of a proud land, despite all the wealth of his kingly coffers and countless horses and men even, has to move his royal throne further up the beach.

Take this illustration. At numerous places in a huge workshop several apparatuses are at work—a boiler, a refrigerator, a motor, a whistle, a fan, an arc lamp, an electro-magnet etc. Suppose you wish to control the workings of the several systems, the most effective way would be to go right to the central generating room of the workshop itself. Once you get at the main switch-board of the entire workshop, you can regulate at will the initial motive force, that is, electricity in this case. Then all the other aspects of this key force 'electricity', namely, heat (boiler), light (arc-lamp), motion (motor), sound (whistle) and power (electro-magnet) can be easily controlled by you. As the Yogi progresses step by step in Yoga, he establishes control over successive centres of energy or Chakras located in the cerebro-spinal system. This gives him an absolute mastery over the force and elements related to the particular chakra.

It is only now, having gained control over body and prana and established them in a condition of harmony and balance, that you come to be on the threshold of the most important part of the Yoga sādhana, namely, concentration and meditation. In the latter stages all the Yogas converge on the common point of meditation. Ultimately this forms the master-key to establish the final Union with the Infinite. The first four practices prepare the dual interdependent instruments of Body and Mind and make them fit for Dhyāna. With Pratyāhāra begins Yoga proper.

Just as the sun collects all its myriad rays and plunges beyond
 On the Threshold the horizon, the practitioner withdraws his mind from
 all his external senses into himself, like an octopus
 retracting its tentacles. It is a scientific centripetal movement prior to
 the purposeful focussing of the full mind which concentration implies.
 This can be likened to the circumference of a circle contracting into the
 centre. This practice renders the tendency of your nature 'inflowing'
 or Antarmukha. The individual gradually becomes an unmoved, un-
 disturbed witness to the play of outer phenomena. Sense-objects can
 neither attract nor repel him now, ✓

In the practice of Pratyāhāra, you will have to draw back the outgoing senses again and again from the sensual objects and fix the mind on your Lakshya or the point; just as the cart driver drags the impetuous bulls and fixes them to the yoke, so must you draw the senses gently. Some aspirants drag them violently. That is the reason why they experience a little headache occasionally.

Pratyāhāra is a trying discipline indeed. It is disgusting in the beginning, but later on it becomes very interesting. You will feel inner strength. It demands considerable patience and perseverance. It will give you tremendous power. You will develop immense will-power. During the course of practice, the senses will run again and again like a wild bull towards objects. You will have to withdraw them again and again and fix them on the Lakshya or the point. That Yogi who is well-established in Pratyāhāra can meditate quite calmly even in the battlefield where countless machine-guns roar in a continuous stream.

You should practise withdrawal of the Indriyas one by one. Deal with the most turbulent sense first. Practise Pratyāhāra of that particular sense to start with. Then you can take up another Indriya. If you try to manipulate all the indriyas at a time, you will gain no success. The task will be an uphill work. You will feel quite exhausted.

Pratyāhāra is a unique and incalculable blessing to the individual today. Life today is a continuous bustle and feverish hurry. It is filled with countless distractions. Economic distress, anxiety and insecurity have come to prevail as permanent conditions everywhere. Man lives perpetually in a state of nervous strain and tension. This has stunted the growth of budding generations. The chief problem for the medical profession has become neurasthenia and neurosis. The thousand and one distractions of modern life have made man a stranger to serenity and poise. It is calmness that makes life worth living. Without it a man's greatest strength fails him in times of stress. Pratyāhāra enables you to overcome the impact of external tumult and retain a sane sense of values even amidst the complex whirl of life today.

The most successful and the greatest leaders of men who have made history, had this power of pratyāhāra developed in them. Knowingly or unknowingly they were masters of this stage of yoga. The oft-quoted example of Napoleon is quite in point. In the thick of battle, he could completely withdraw into himself and snatch a short period of sleep, sitting astride his charger. The great Gladstone had this capacity. He

could relax perfectly at will and thus retain his youthful spirits and health to the very end. Pratyāhāra reduces mental and physical wear and tear to a minimum.

The Key
Stone

Having checked all other operations of the mind, it is now brought to bear upon a single point. This gathering together and bringing to bear upon of a force at a given point on any object, idea or act, forms the process of concentration. The concentrated application of a force makes for maximum results in minimum time and effort. ✓

This law is equally applicable to man in all branches of his life's activities. With the utmost concentrated and careful attention the surgeon executes minute operations. The deepest absorption marks the mental state of the technician, the engineer, the architect or the expert painter, engaged in drawing the minute details of a plan, chart or sketch where accuracy is of paramount importance. A like concentration is displayed by the skilled Swiss workmen that fashion the delicate parts of watches and other scientific instruments. Thus in every art and science.

The tremendous power that any force develops when collected and directed through a given point is fully recognized. This is seen in the rush of the water at the sluices of dams, in the impelling power of steam from a railway boiler. As the sunlight when passed through a lens emerges as a single fiery ray of intense power, the whole mind attains a single pointedness through Dhāraṇa. Now experience has shown that interest and attention of the mind is attracted by three distinct means *viz.* sound, vision (physical or mental), imagination or idea. The yogi enters into deep meditation by concentrating his mind upon the mystic inner sound of pranava. This is the Anāhata nāda which becomes audible when the inner sheaths are perfectly purified and harmony established; or again a mantra is repeated in a harmonious tone and the mind is concentrated on the continuous unbroken sound. A concrete form of any aspect of the deity or the syllable OM is chosen for fixing the mind. The rational and Vedantic type fills the mind with some sublime idea or formula upon which the mind is made to dwell intensely and continuously. ✓

During concentration the mind becomes calm, serene and steady. The various rays of the mind are collected and focussed in the object of meditation. The mind is centred on the Lakshya. There will be no tossing of the mind. One idea occupies the mind. The whole energy of

the mind is concentrated on that one idea. The senses become still. They do not function. When there is deep concentration, there is no consciousness of the body and surroundings. He who has good concentration can visualize the picture of the Lord very clearly within the twinkling of the eye.

Manorajya (building castles in the air) is not concentration. It is wild jumping of the mind in the air. Do not mistake Manorajya for concentration or meditation. Check this habit of the mind through introspection and self-analysis.

There are different kinds of meditation. A particular kind is best suited to a particular mind. The kind of meditation varies according to taste, temperament, capacity and type of mind of the individual. A devotee meditates on his tutelary deity or *Ishta Devatā*. A Raja Yogi meditates on the special Purusha or Ishwar who is not touched by the afflictions, desires and karmas. A Hatha Yogi meditates on the Chakras and their presiding deities. A Jñāni meditates on his own Self or Atma. You yourself will have to find out the kind of meditation that is suitable for you. If you are not able to do this, you will have to consult a teacher or preceptor who has attained Self-realization. He will be able to know the nature of the mind and the correct method of meditation for you.

A Raja Yogi enters into the meditative mood deliberately by practising Yama, Niyama, Āsan, Prāṇayāma, Pratyāhāra and Dhāraṇa. A Bhakta enters into the meditative mood by cultivating pure love for God. A Vedantin or a Jñāna Yogi enters into the meditative mood by acquiring the four means and hearing the Srutis and reflecting on what he has heard. A Hatha Yogi enters into the meditative mood by practising deep and constant Prāṇayāma.

Regular meditation opens the avenues of intuitional knowledge, makes the mind calm and steady, awakens an ecstatic feeling and brings the Yogic student in contact with the source or the Supreme Purusha. If there are doubts, they are all cleared by themselves when you march on the path of Dhyāna Yoga steadily. You will yourself feel the way to place your footstep on the next rung of the spiritual ladder. A mysterious inner voice will guide you. Hear this attentively.

When you enter into deep meditation, you will easily rise above consciousness of your body and surroundings. You will have equanimity of mind. You will not be easily distracted. There will be stoppage of

up-going and down-going sensation. The consciousness of egoism will also gradually vanish. You will experience inexplicable joy and indescribable happiness. Gradually, reasoning and reflection also will cease.

When you enter the silence through deep meditation, the world outside and all your troubles will drop away. You will enjoy supreme peace. In this silence is supreme light. In this silence is undecaying bliss. In this silence is real strength and joy. The entire system is renewed and invigorated in the depths of Dhyāna.

Faith (Shraddhā) or confidence in the power of Yoga, Power (Veerya) for the concentration of mind, memory (Smriti) for contemplation, Samādhi, the final aspect of Yoga, Prajñā, discernment for the direct perception brought about by meditation becomes the means for the attainment of Samādhi.

But the final leap across the barrier of relativity piercing the veil between the individual and the Absolute, is ultimately a question of Divine Grace. Surrender draws down grace. The individual becomes one with the cosmic will through surrender. Grace makes the surrender complete. Without grace perfect union is not possible. Surrender and grace are interrelated. Grace removes all obstacles, snares and pitfalls of the spiritual path.

The Bhakta gets Bhāv Samādhi and Mahābhāv. He enjoys the warm embrace of the Divine. He attains Divine Aishwarya. All the spiritual wealth of the Lord belongs to him. He is endowed with divine vision or Divya Chakshu. He is endowed with Divya (lustrous) subtle body and Divya (divine) senses. He does not like to have complete absorption or merging in the Lord. He wants to remain himself separate in front of Him and taste the divine honey of Prem.¹ The absorption in the Lord comes to him temporarily in the intensity of his love and experience in the beginning though he does not like it. He attains similarity with God. He is God-like in the beginning. Eventually he attains Sayujya or Oneness.

Between the non-dual resting and the profound slumber, the difference consists in the merging of the mental function in ignorance in the latter and the merging of the same function in the extremely tangible Brahman in the former; the felicity of the latter is enveloped in ignorance, while the blissfulness of Brahman perceived in the former is entirely devoid of covering.

¹ Prem-Love.

Just as the fire is absorbed into its source when the fuel is burnt out, so also is the mind absorbed into its source, the Atma, when all Sankalpas or thoughts are annihilated. Then only one attains Kaivalya or the state of Absolute Independence. All thoughts cannot be destroyed in a day. The process of destruction of mental modifications is a difficult and long one. You should not give up the practice of destroying the thoughts in half way, when you come across some difficulties or stumbling blocks. Your first attempt should be the reduction of thoughts.

Reduce your wants and desires first. All thoughts will decrease. Gradually all thoughts will be extirpated. Thoughts are like the waves of the ocean. They are countless. You may become desperate in the beginning. Some thoughts will subside, while some others will gush out like a stream. The same old thoughts that were once suppressed may again show their faces after sometime. Never become despondent on any account at any stage of the practice. You will surely get inner spiritual strength. You are bound to succeed in the end. All the Yogis of yore had to encounter the same difficulties that you are experiencing now.

The fruit of meditation is Samādhi. It is the serene superconscious state when having crossed all the barriers that separate the Infinite and Unconditioned from the limited and the finite, the self of man becomes co-extensive and identical with the Cosmic Spirit. It is that state of most intensive awareness of the final supreme essence of existence itself. The difference between the ordinary act of knowing and the knowledge from Samādhi lies in the fact that in the former the normal faculty goes out towards the external object or phenomenon to be known and comprehend it. In the latter, the knowing faculty does exactly the reverse. It disconnects itself from the externals and dives within, intent upon glimpsing the inner effulgence. This knowledge puts you once for all far above the pains and imperfections of a relative existence. The Upanishads declare that the knower of Atman, the Perfection dwelling in oneself, is for ever freed from the trammels of this evanescent existence. He crosses all pain and sorrow.

Samādhi is the eighth step of the Yogic ladder. Intuition, revelation, inspiration and ecstasy are all synonymous terms. The meditator and the meditated, the thinker and the thought, the worshipper and the worshipped, the subject and the object have now become identical. The meditator has merged himself in the Soul or the all-pervading Spirit. All

The Destined
Reach of the
Individual

watertight compartments have disappeared. The Yogi feels oneness and unity everywhere. He feels: "I have nothing more to learn. I have nothing more to do. I have nothing more to obtain".

Samādhi is of two kinds, *viz.*, Savikalpa Samādhi and Nirvikalpa Samādhi. Savikalpa is a lower Samādhi. Nirvikalpa is the highest Samādhi. In the Savikalpa Samādhi the Samskāras or latent impressions are not fried in toto. There is support for the mind. There is still the triad of a subtle type, *viz.*, the seer, sight and seen, or the knower, knowledge and knowable. So Savikalpa Samadhi cannot give full satisfaction, full freedom, full bliss and full knowledge.

In Nirvikalpa Samadhi all Samskāras are burnt in toto. There is no support for the mind. The mind has merged into the all-pervading Spirit. There is no triad of seer, sight and seen, and so forth. Nirvikalpa Samādhi gives full satisfaction, full freedom, full bliss and full knowledge.

There is also another classification *viz.*, Jada Samādhi and Chaitanya Samādhi. In Jada Samādhi there is no awareness. It is more or less like deep sleep. The Yogi does not return with intuitional knowledge. The Samskāras and desires are not destroyed. This is the Samādhi of the Hatha-Yogis who practise Khechari Mudra. Somehow the Prana is fixed in some lower Chakra or centre of spiritual energy, and the Yogi remains like a dead corpse. The Yogi can even be buried in a box underneath the ground for several days at a stretch. Jada Samadhi cannot give liberation or Mukti. It is more like an acrobatic feat. The Samādhi that we often hear of *viz.*, of persons entering into one in public places is nothing but Jada Samādhi. In the other variety of Samādhi, *viz.*, Chaitanya Samādhi, there is "perfect awareness". The Yogi has intuitional knowledge.

Having climbed up to the highest reaches of realization, let us cast a sweeping glance at the stage traversed, surveying the four main methods of attainment. You see that the basis and foundation is identical, *i.e.* ethical purity, a sound moral character. This is the universally accepted primary *sine qua non*.

The mind should be perfectly purified. Then only will the vessel or the mechanism be fit to receive the descent of the Divine Light. It should be sufficiently strong to bear the pressure of a sudden expansion of consciousness or cosmic vision which is above mind and which covers the whole existence in one sweep of his new exalted, magnanimous experience. Therefore wait patiently if there is delay in the descent of the Divine Light. Grow in purity and strength.

Yoga also constitutes the overcoming of the measured operation of the Time factor. Consequently the numerous forces, gross and subtle that Humanity has to encounter and overcome in the course of unhurried evolution, array themselves now in concentration, *en mass* before the follower of Yoga. They range themselves against him in varied forms. The student of Yoga has therefore to equip himself to withstand their onslaught. He has to be grounded in a blameless and unassailable moral character. He has to call fully upon all his reserve powers of body and mind to serve in this combat. Caution is called for as well as great patience, unrelaxed vigilance, boldness and courage. Maintenance of celibacy, the preliminary Yamas and Niyamas are his shield and armour and his weapons of defence and offence.

An important point has to be clarified here. There are several well-defined systems of Yoga. Each one has its distinct methods and processes. Now what element in these practices marks them out as Yogis? Is it the mere process that can be named Yoga? No. For if it were so, they should yield the fruits of Yoga by whatever way they are practised. Then concentration, *Upāsana*¹ of a deity, Japa of particular Mantras, even when done for the purpose of personal gain with some secular or material end in view would lay claim to the name of Yoga. The expert pearl-diver restrains his breathing under water. Can this then equal the Kumbhak of *Prāṇayāma*? These acts cannot lead to Yoga, namely union with the Divine. Japa for obtaining issue, *Upāsana* to become wealthy and prosperous, concentration to acquire powers for influencing others, all these are no more Yoga than the occult practices of pseudo-occultists and witch-doctors. Though the methods in themselves may be a limb of the real Yoga, yet a base motive and a destructive or unmoral aim renders them the very antithesis of Yoga. The common underlying element in the various processes that mark them as really Yogic is the lofty motive with which they are inspired, the high ideal they aim at attaining. Thus it is that any act going to fulfil the ultimate ideal of Union of the individual soul with the Supreme Spirit becomes Yoga. Else it is not Yoga. This point should be remembered well.

Humanity of the 20th Century is dominated by Rajas. Ceaseless high-tension activity characterizes the daily round of the average man everywhere. Occidental civilization that has spread the world over is Vaishya in nature. Commercialism

¹ *Upāsana*—Worship.

is its keynote. Money and the means of acquiring it are the sole concerns. If the principles of Yoga and the Yogic way of life are to be made the means of redeeming and elevating man from this morass, all the above facts will have to be taken into consideration. This passion for extreme activity cannot be repressed. The modern individual cannot be quiescent. A rescuer on the edge of a pond has to bend and assume a stooping posture in order to pull out a person struggling in the mire. Yoga too has to assume the aspect readily practicable by all. (As activity is unavoidable, in and through activity Yoga is to be attained). Therefore the Gita and the Yogavasistha are the greatest scriptures for the world in this age. The Gita ideal is the most eminently suited Ideal for the present Age. Every normal act should constitute a synthesis of all Yogas. Sādhana should no more imply a divorce and severance from normal life. The latter will itself become a dynamic Sādhana through a shifting of your angle of vision. A proper Bhav becomes the philosopher's stone to transform the normal into the Yogic.

The eminently practical nature of Yoga renders it the rational bridge between the idealism of pure philosophy and the hard realism of earthly life. Its claim upon modern men is that it strikes the golden mean between the entirely abstract speculations of the mere theorist and the overdone matter-of-fact attitude and the prosaic hard-headedness of the rank materialist. It is concerned with Transcendental Life, yet it asks you to take nothing for granted. You are to follow definite methods, arrive at tangible results and experience them in your own life.

Its scope is comprehensive. It aims at an integral development of all faculties in Man. It is then the precursor and the direct herald of the race of superman into which present Man has to evolve. It has got its aim, the creation of a New Man of deep illumination and high vision and the establishment of a new world order, the Satya Yuga,¹ as a result of such enlightenment.

The modern world abounds in conceptions of Yoga ranging from the deeply mystic and sensible to the absurd and ludicrous. Conflicting divergent views and wild fanciful notions have clustered around current conceptions of Yoga and sādhanā. It has become conventional to conjure a picture of an emaciated, half-naked, ash-smearing figure with matted locks, seated cross-legged, beneath a spreading tree. Through long associations as well as mischievous misrepresentations,

¹ Satya Yuga—Golden Age.

such notions have taken deep root. The super-physical phenomena occurring in the practice of Yoga and the practitioner's experiences on subtler planes are viewed with suspicion and regarded as so much oriental magic.

Now this point is to be grasped clearly. Yoga is neither fanciful nor does it contain anything abnormal. Yoga is not for the favoured few. It is not any strange unnatural process practised by a small minority to gain some queer or extraordinary end. Definitely no. It is the time-tested, rational way to a fuller and more blessed life that will naturally be followed by one and all in the world of tomorrow.

Yoga is not dependent upon the possession and exercise of any abnormal faculties. It only requires you to develop faculties that you already possess, but which are lying dormant within you. And the chief instrument that it utilizes is one that is common to the whole of humanity, namely, the human mind.

Yoga is thus not a study or practice meant only for the recluse in the Himalayan caves. Yoga is not alone meant for one who clothes himself in rags, who has the stone as the pillow, who eats what he gets by a mere stretch of his two palms, who weathers the cold and the heat, who remains under the canopy of the sky. Yoga is meant equally for those who live in their different stations in life, who live in the world, who live to serve the world. It is not only a property of the Sannyasin, or the Yogi, but it is the universal property, a universal subject that requires deep study and sincere practice, at the hands of the citizen, the townsman, the villager and the forest-dweller (recluse). It is the marvellous science whose one fruit is not of discord but of true peace, born of the Soul, born of Infinite Bliss.

The cause of evil in the world is Avidyā or ignorance. To remove this avidyā, there must be proper training through Yoga. Giving secular education, or food and clothing to the needy, is the lowest type of *sewā* or service. It feeds not the soul but only the physical body, which requires washing and cleaning at every step. It is just like the transference of rheumatic pain from one joint to another, after treatment of the pain at a particular point. Social evils remain there, in one form or another. There is no complete eradication of social evils. The evil takes a new shape or changes its place of rest. True and right training in Yoga, proper feeding of the physical body through nutritious food, strictly based on Yogic recipe, proper clothing etc., and more than all, a dynamic training in Yoga Vidyā, can bring in a new world order, a new life and a new epoch.

Man today has totally become a slave of artificial gadgets and synthetic products even in matters of food, personal health and every little matter of day-to-day life. He is a rag-doll propped up by a thousand scientific aids and devices. The measure of man's happiness is in proportion to his victory over environment. The less you depend upon other things, the greater your happiness. Depend upon outside objects for your satisfaction, then misery is the result.

The Yogic Way
of Life

To raise him up from this state, the yogic way of life is the most effective way. This alone has succeeded wonderfully in achieving the task of making man fully self-sufficient, making him dispense with external aids at every step. It strengthens his body, mind and soul. Its various practices make him perfectly healthy, render him immune to diseases that have followed in the wake of 20th century civilization. All sense perceptions become keen and clear; mind and intellect are wonderfully sharpened. Man's latent faculties are developed and hidden powers brought forth. He is enabled to live a 'full life' in the real sense of the term. He is fit to become a capable head in his own home, a useful member of society and an able and ideal citizen of his country. He is the leader of men. He even becomes invested with the power of helping and guiding humanity itself.

The present-day attitude, *misnamed* scientific and rational, has degenerated into little short of a mixture of dogmatism and disbelief. It is more sceptical than impartially critical. It is prejudiced against the traditional, the ancient.

The very approach to the subject of Yoga is topsy-turvy. You try to see if Yoga conforms to the findings of modern science and if it does not, then reject it as unscientific. But what is actually seen is that science itself has been a continuous tale of elucidating theory after theory only to be cancelled by further research and fresh discoveries. It will ever remain thus. The conclusions of Yoga, on the other hand, are such as have been proved and established beyond all doubt. The reason is self-evident. All inventions have their source in the mind. It is through deep thinking alone that the scientist analyses and probes into the secret of phenomena. Through the human mind have all the marvels of modern science been considered and brought forth. On the other hand, the Yogi plumbs the depths of the mind itself. Having analysed it threadbare, he proceeds even beyond the

The Supreme Norm

mind to its original source, the Infinite Atman. The scientist and the philosopher know only the help of the mind. The yogi is the ✓ knower of the mind itself and the seer of the source of the mind too. Thus rather is it the Yogic service that ought to be the form of judgment to which all other departments of knowledge should be made to conform. Then alone will the direction of modern progress proceed upon the proper lines. The truth realized through Yogic vision serves as the unerring guide for Humanity to follow on the path of Evolution.

English-educated people are unduly carried away by modern scientific theories and discoveries. Anything, however baseless it be, when stamped by the seal of science, is regarded as gospel truth. A theory or doctrine however fallacious, is accepted as true wisdom for all ages, when it is proclaimed in the name and authority of Western science. Any fantastic and ludicrous statement, if only made by a scientist, people are ready to swallow with avidity. Such has become the order of the day. On the other hand, they reject as baseless superstitions the sublime teachings of our ancient Rishis and sages. The dislike for everything Indian has entered the very cells and tissues of the Indian brain.

I do not, however, condemn the many discoveries made in 'Science' by the West. These have led us to unceasing war. These have created a race amongst nations for supremacy over commerce, for conquest of the whole globe and for the mass destruction of mankind. If this is the goal of science, it is well that its death-knell is sounded this very moment.¹ The sages of yore, knowing the true import and culmination of the sciences which they also knew, withdrew their senses

¹ No, it is not so. Science or scientific knowledge by itself is unmoral. It is not responsible for any misuse unscrupulous men may make of it. The Atomic Bomb is a triumph of science but a challenge to man. (See p. 819, Vol. I.)

The question therefore turns round the special kind of training and discipline which has the power to ennoble man and make him cultured and refined, so that he would never stoop to do anything ignoble, unfair and mean, nor would he ever dream of exploiting the ignorant, poor, helpless humanity for his own selfish ends. It is because the present scientific and other educational and religious training and disciplines have been found to be inadequate and insufficient to achieve this object (two world wars in less than a generation is an ample proof for such a statement), that the necessity for another kind of training and discipline is felt. And that training and discipline is no other than the true occult and theosophical training and discipline, which is the same as the Raja Yogic discipline described in this monograph and which is referred to in the Introduction, Epilogue, part IV and a number of other monographs in the book.—EDITOR.

from the outgoing phenomena, looked deep into the soul and pacified their surging mind through the light inexpressible of the divine communion. They allowed their intelligence to unravel the mysteries of the soul rather than the mysteries of matter and of the phenomenal existence and came to the proper conclusion that all attempts to attain peace, joy and happiness, with the mind dragged out to the outer objects, would prove futile and that the true peace can be had within one's own mind through the calming of its modifications and through sincere devotion and prayers. Can the scientific discoveries and inventions comfort the world today, torn by strife and struggle, war and unhappiness? Can it bring back the desired peace which the aggressor and the oppressor, the oppressed and the down-trodden equally long for in their heart of hearts? Can it soothe the wounded hearts of those mothers who sacrificed their sons in the name of king, country and religion? No. Not in the least. True comfort, sincere joy and peace can only be had not in the outer world but within, not in the external phenomena but within the human frame, with the senses controlled by Yoga. Let us therefore pray to the Supreme Lord of the Universe and practise Yoga in right earnest and commune with Him for peace and plenty, harmony and infinite bliss. ✓

The prevalent notion that spiritual realization antagonizes the individual to society besides rendering the former incapable of being a useful member of the human community is an unfortunate misconception. This has come from the notion that Samādhi is a peculiar trance state wherein the seer becomes once for all oblivious to the physical existence. But in truth he only isolates himself for a period for reasons of discipline. Being personal and individualistic to start with the experience later on becomes total and cosmic in effect.

There is a further logical development to the Samādhi state, when the experience resolves itself into the very texture of the normal consciousness of the seer, as his Sahaja Avasthā. To him the experience becomes spontaneous and he works on amidst the diversities that characterize the outward existence, as unaffected Sakshi (Witness).

The romantic imagination of the sage sitting sunk in Samādhi for centuries has outlived its time. Humanity has evolved considerably. No ant-hill grows over the trance-merged seer today. Rather he allows no grass to grow under his feet, for the law in the spiritual hierarchy today is the law of a divine activism. The accepted dictum is Serve, Love, Give. The fruits of the

The Adept of
To-morrow

tree of realization are to be tasted in every home. In Samādhi is garnered such a tremendous reserve of power that this divine energy irresistibly seeks an outlet in service.

The seer emerges from the experience filled with an inner surge of Love and friendliness towards all creation and a sense of power to manifest this Love in deeds of goodwill and help. Samādhi unifies the entire creation through a homogeneous experience. Inspired by a cosmic sympathy of life, he gives himself joyously and freely for the cause of *Lokahita* (public welfare).

The ultimate grand motive of Yoga today is "Sarva bhuta hita". The Yogi will tread the Kalyana mārṅa, or the way of universal weal. Stepping forth out of the portals of the mansion of Eternal Life, the illumined one treads again through the maze of terrestrial life shedding the radiance of a divine sympathy and compassion. Vibrant with wisdom and clad in the spring raiment of super-mundane Light he will henceforth have as his sublime objective the illumination of the Human Race as a whole.

WHERE THEOSOPHY AND SCIENCE MEET

A STIMULUS TO MODERN THOUGHT

Vol. II

PART IV: LAW

SOME PRACTICAL APPLICATIONS

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The Universe is governed by Law.

The Law of Life is Service and Sacrifice.

The Universe is formed by the Divine *eternal sacrifice* by which it is ever nourished and sustained.

There is no joy on earth like the sacrifice of the lower nature to the higher.

It is more blessed to give than to receive.

He that is greatest among you shall be your servant.

PREFACE

I

THE universe is governed by law. The whole drama of creation and evolution has been enacted and is proceeding under laws of nature which are inexorable but just and beneficent and destined to take humanity to its ultimate predetermined goal. In the light of these laws we find phenomena happening and events taking place with a regularity and precision which call forth our admiration. We owe a deep debt of gratitude to the great scientists, occultists, sages and prophets who have discovered these laws of nature and of life and shown their relationships between man and the universe, and between man and society. A knowledge of these laws and their applications in daily life in society would be of the greatest help to steer the ship of state smoothly and safely to its destination.

The society chariot is not running smoothly for the last many years.¹ There is something radically wrong in the present social structure. It is our firm belief that a knowledge of the laws of life and nature, and *a discipline and a way of life based on these laws*, will be of the greatest help in restoring order in society and bringing peace and happiness in the world. In corroboration and justification of what has been stated above, the following few examples of the applications of some of these laws in the public policies of the state and the private behaviour of the individuals will be found to be edifying.

¹ See pp. xxxv—liv, Vol. I, this Series.—ED.

A study of a healthy living organism¹ shows that there are two important processes at work in its mechanism. These processes apparently seem to be contradictory to each other, but are really two aspects of a larger process which may be defined as one of organization. Every organic body or living organism exemplifies these two processes at work within itself—of insulation and specialization on the one hand and synthesis and unification on the other.

The first process shows a disintegrating and the second an integrating tendency. An organ in an organic body fulfils its appointed function only when it specializes in that function. The greater the specialization of the organ, the more clearly it will be differentiated from the other organs and the richer will its contribution be to the life of the whole organism when it co-ordinates and co-operates with the other organs.

In a perfect organism each side of the process will be more definite and outstanding, namely, specialization and synthesis. This holds true not only in the case of a simple physical organism, such as the human body, but also in those of larger and more complex organisms on the planes of feeling and thought, or on the cultural plane, which might result from the grouping together of human beings having some common ideals as their objective. The grouping may be of a learned society, a literary, scientific or art society, or it may be a grouping of persons with common cultural or religious ideals. These groupings of persons may again be small as those of learned societies or large as those of religions, nations, civilizations, etc.

Whatever the organism or the organization may be, the same two processes, one of insulation and specialization and the other of synthesis and unification are always at work; the latter process is sometimes not so evident as the former but it is there all the same and requires some insight to be noted and emphasized.

With this knowledge of the scientific laws of the building and growth of an organism or an organization in the background, let us look at the process of the organization, for example, of the Indian and Pakistan nations, which has taken place recently before our eyes and try to find out whether the separation of the former big group of 44 crores of people into the Indian and Pakistan

¹ This subject is elaborated in *A World Expectant* by E. A. Wodehouse.—ED.

nations has taken place in accordance with the scientific laws of growth and development. We are constrained to say that it has not so taken place.

Under the guidance of wise statesmen acquainted with the biological laws of growth, there would have come into existence *one* great Indian nation, without any partition, comprising within it all communities, Hindu, Muslim, Sikh, Jain, Parsi, Christian, Jew, etc., each community, whether great or small, enjoying complete security and freedom and getting all possible scope and encouragement to grow and specialize along its own cultural lines and take its cultural development to the highest possible pitch.

Now just as an organ, for example, liver or heart, however specialized it may be, cannot live alone but has to co-operate with the other organs of the body to subserve the life of the whole organism, similarly, the different communities of individuals, however cultured they may be and

howsoever much specialized in their peculiar traditions and unique racial characteristics, cannot live alone or become isolated on the physical plane, for that would mean not only their death but also the death of the whole organism, but should co-operate with one another to subserve and sustain the life of the mother-organism. Only thus will a living Indian nation come into existence. And the Indian nation will be all the stronger and richer by the fact of the cultural development of her different daughter communities and she will be all the more vitalized by their co-operation with one another for a common ideal.

Each separate community must be free to work out its own destiny in its own way and to develop to the highest point possible its own individuality, but its watchword should be in relation to the other sister communities and the motherland "*together differently*". Each will bring its own special contribution to the unified richness and variety of the larger life of the mother-organism.

The Indian nation has, again, to make its own unique contribution to the world culture in co-operation with the other nations with their unique cultures. This is possible only when each nation is free to grow along its own line of growth. In a truly organic internationalism both the freedom of each individual nation and the mutual interdependence of each should not be forgotten.

What a fine place this earth of ours would be to live in if the leaders of each faith and community and the rulers of each state and

Cultural Contribution of each Community

Contribution of each Nation to a World Culture

nation understood these simple biological laws of growth and applied them to the building of a great nation like India, or a great world organization, which would serve as the cradle of a new civilization broad-based on the natural laws of the growth of a living organism!

II

Let us now see the application of these biological laws in another direction and find out what light they throw on the topical question of the formation of a classless society. There is at present a talk to do away with the middle classes. Now the middle classes have always been regarded

The middle Classes
are regarded as
the Backbone
of Society

as the backbone of society—a class which has given us our scientists, engineers, doctors, lawyers, teachers, professors, social workers, administrators, etc. In the present crisis through which society is passing, it is the middle classes who have been hit hardest and suffered the most on

No future for the
Middle Classes

account of inflation, and now it is openly said that there is no future for the middle classes and that they should either align themselves with the capitalists and fight for the slogan of free and private enterprise, or frankly accept the future trend of political thought, work for a planned state economy and align themselves with the labour camp. The underlying idea is

Equalization of all
Classes

the levelling *down* and equalization of all classes and having a classless society and thus to fulfil one of the three slogans of the French Revolution, namely, Equality.

Of the three slogans Liberty, Equality and Fraternity, the last is accepted by all parties as it is based upon an eternal truth. But the same support

Liberty, Equality,
Fraternity

is not given to the other two, for they are true only within certain limits. It is true that all of us are *essentially* one, having the same origin and the same destiny. It is also true that all of us should have equal opportunities and that we all should be equal in the eye of the law. After admitting equality in these matters, we should also admit that we are all unequal in other respects. For example, we are unequal in our physique, moral stature, intellectual calibre and spiritual unfoldment. We stand on different rungs of the evolutionary ladder and are therefore all different in our temperaments, intelligence, understanding and grasp of things. We should recognize these facts. It is impossible to ignore these differences and also others due to culture, tradition, faith, race, creed, opinions, etc.

These differences are inevitable and perfectly in accordance with the laws of nature, with the biological laws of the building of an organism. Both these laws of 'equality' and 'inequality' find their expression in the general law of "Unity in Diversity". But these inequalities should not come in the way of our co-operating with one another for a common goal.

The formation of a cultural or racial group is exactly equivalent to the *specialization* of an organ as we have seen in Section I above. We should not stop at this process of specialization but proceed further and take the next step of integration, synthesis or unification, that is of building up a big nation, as do the separate organs of the body do in the building of a healthy organism. Our ideal should therefore be, not a classless society which, as we have seen above, is against the law of growth and evolution, for diversity is an essential feature of evolution, but to have all essential and natural divisions in society, including a *powerful* middle class. And a wise and enlightened Government would see that this objective is carried out and further, that each individual fulfils the Dharma of his class, whatever that class may be in which he finds himself according to his free choice, namely, that he consecrates himself to the service of society. Our motto should therefore be "**Together Even Though Differently**",¹ which is perfectly in accord with the biological law of the building of a healthy organism.

Together Differently

III

Elaborating further the subject of the two laws of specialization and synthesis let us see how they affect the individual.

This is an age of specialization.² Specialization has, no doubt, a place in the evolutionary scheme as we have already seen in sections I and II, but it has a tendency to narrow and cramp the mind if it is not at the same time corrected and counterbalanced by the *synthetic* faculty of the mind. It is therefore necessary for the specialist to keep his eyes wide open and keep himself abreast of the times by seeing trend of thought in other departments of knowledge and other spheres of life. This will act as a corrective and enable him to broaden his mind, give right values to all things and see them in their proper perspective.

This is an Age of Specialization

¹ Dr. G. S. Arundale.

² See pp. 12-13, Vol. I, this Series.—Ed.

How to carry out this synthesis or bridge-building is an important question. What is its *modus operandi*? Bridge-building is an art and science; an attempt is made in this book to show what this art and science of bridge-building is. An appropriate title for this book would have been "How we can be Bridge-Builders".

A person who is dissatisfied with the present state of affairs in the world, who wishes to find out the causes which have led to the present chaos, who wishes to do his little bit for the solution of the complicated problems which face humanity, gradually grows into a bridge-builder. For, he will be the person who will first begin to build a bridge between his thoughts, emotions and actions and thus harmonize them; and then as a person who has attained harmony he will act as a bridge between the present and the past, and the future, between science and religion, between sciences and humanities, and between science and society. He will not live in a water-tight compartment of his own but consider knowledge as one organic whole and link up the different branches of science, perceive relationships between science, philosophy, religion and art, and thus bring about a great synthesis of knowledge. In this very process of synthesis and bridge-building he will himself unconsciously grow into a cultured man, into a man who is on his way to the attainment of peace within him, who has a zest for life and who is a dynamic personality. Such a dynamic personality with his heart and mind at peace, will not rest until he has built up bridges between man and man, man and woman, youth and age, between community and community, class and class, nation and nation, faith and faith, and established peace and harmony in the world.

This is the task confronting the educated man and woman of the present day. Let our universities bring out the significance of the applications of these laws of nature in daily life and see that their alumni grow up into cultured individuals and loving, compassionate human beings, willing to share one another's sorrows and burdens and anxious to co-operate with other people to convert the present war-ridden world of ours into a beautiful temple of learning and wisdom and a happy home of peace and bliss.

D. D. KANGA

"THE OLD ORDER CHANGETH, YIELDING PLACE TO NEW"¹

By THE EDITOR

"THE old order changeth, yielding place to new". Wherever we turn our eyes, change seems to be the order of the day. Be it in education, economics or politics, be it in science, philosophy, religion or art we find old forms are breaking up, unable to express the intruding new life. Everywhere the systems we hitherto used with success are now found to be inadequate and require to be overhauled. A spirit of change and revolution is in the air. New experiments are being tried in every field of activity by pioneers and enterprising members of the community and the State. Different systems of administration are being tried in different countries. Different economic systems are proposed and some of them are given a trial. Every day we read of new schemes of education which are being experimented with in different lands. In science too the inductive method of research is found to be inadequate in the investigation of phenomena in the subatomic world.

Why is the old order crumbling? What is the cause? Theosophy gives an answer which appeals to our reason and satisfies our intellect. For Theosophy goes to the root of the question, which can be satisfactorily answered only when we take into consideration the constitution of man and the universe as a whole, both visible and invisible, and study the relationship between the two. It is also necessary to study the gradual appearance of different phases of consciousness in man as he grows from childhood, adolescence and maturity to old age. We shall then perceive that there is a plan, and that plan is evolution, and it unfolds according to certain laws. And if that which has already been unfolded is borne out by facts in history, archaeological excavations and researches, and corroborations by

¹ This is the Introduction to Part IV of the first Edition with some additions.—ED.

science,¹ then it is highly probable that the powers of humanity will in future be unfolded in accordance with the same plan revealing the same laws, and those powers will be marvellous and the end will be glorious.²

Looked at from this point of view, we need not be alarmed as crisis after crisis shakes the world. We are passing through a phase of consciousness which indicates the death of one civilization and heralds the birth of another, a phase indicating the crumbling and disintegration of the old order and the reconstruction of a new order. It is here that we must be most careful, and it is here that the knowledge of the plan as revealed in the classic Theosophical literature will be most helpful, so that the new moulds we make, the new forms we build up, for the expression and unfoldment of the new phase of consciousness shall be of the **Right** type.

The new knowledge of various phases of consciousness and of planes and sub-planes of different kinds and states of matter given in Theosophical literature helps us to understand why the old materialistic scientific civilization, which is purely mental, is disintegrating before our very eyes and why it carries along with it the seeds of its own destruction. Then too it gives a timely warning against building the new civilization on a foundation of shifting sands, shows the next step to be taken, and indicates the lines along which humanity has to proceed. (*Vide infra*.)

In order to emphasize the viewpoint presented here and in the different monographs in this series, a number of tables are given showing the signs of the old dying civilization and the birth of a new age inaugurating a new civilization. These could be amplified by the student, as they are based on everyday experience. They illustrate a law showing a sequence in the phases of consciousness and they are applicable to man, sub-races, root-races, institutions, etc. Table 1 is purely tentative, as material for study and not for acceptance. This table shows the field of evolution in a seven-fold universe. It shows the goal for humanity. It is the ideal man has to work for, which he will reach when he attains Divinity, but he has to begin that attainment *here and*

¹ See *Archaeology and Scientific Corroborations of Theosophy*, Part 1, this series.

² This is illustrated in a separate section at the end.

now. The point to be noted in this table is that the mind is the reflection of the Spiritual Will (aspect of Atmā), that is, it is under the wise guidance of the Spirit of Man. *This table is an attempt to indicate the right place of the mind in the scheme of things.*

Table 2 shows the field of evolution in a five-fold universe as it stands at the present stage of the evolution of humanity. *This table explains why the present age is known as "Mind-dominated". (Vide infra.)*

EVOLUTION IN THE SEVEN-FOLD UNIVERSE

→	1. The <i>Divine</i> Plane.
→	2. The <i>Monad</i> ic Plane.
→	3. The <i>Atmic</i> Plane. The Plane of the Spirit.
→	4. The <i>Buddhic</i> Plane. (The Plane of Intuition). The Junction or Bridge Plane. The Plane of Union, Harmony and Love. The Plane of Law, complete within itself. The Pure Source of Wisdom. The Body for all the Higher Principles and the Spiritual Soul for the Lower Principles.
→	5. The <i>Mental</i> Plane. The Plane of Intellect, the ultimate expression of Individuality. <i>The Mental Plane is a reflection of the Atmic Plane and therefore under the direction of the Spirit of Man.</i>
→	6. The <i>Astral</i> Plane. The Plane of Feeling and Desire, of Attraction and Repulsion. The Plane of Motive Power. The Astral Plane is a reflection of the Monad ^{ic} Plane.
→	7. The <i>Physical</i> Plane. The Plane of Action and Precision. The Physical Plane is a reflection of the Divine Plane.

TABLE 1

Table 3 shows the sequence of Principles in man. This table is given side by side with Table 4 to bring out the relationship between the numbers and the principles on the one hand and the numbers and the phases of consciousness on the other.

Tables 1, 2 and 3 again show the intimate relationship between Planes of Matter and States and Levels of Consciousness. In other words, they show the constitution of man and the universe and their relationship.¹

Table 4 gives the sequence of phases of consciousness as Prof. Marcault outlines them. They are beautifully developed in the two brochures *The Evolution of Man* and *The Next Step in Evolution* by Marcault and Hawliczek.

This Field of Evolution in the Seven-fold Universe is not actively manifest in the present stage of the Evolution of Humanity. It will be the Normal Evolution for Man when he is on the way to attain Divinity. It is one way of approach to understanding.²

The Field of Evolution in the Five-fold Universe is more or less actively manifest in the present stage of the Evolution of Humanity. The reflections of the highest two planes into the lowest two planes, being partial and distorted, are not perfect. But the reflection of the third plane (higher mental) into the fifth plane (lower mental) is perfect, as both are mind planes whose vibrations are sympathetic. That is why in the present stage of the evolution of humanity mind is supreme, absolute as it were, and the present age is known as the "mind-dominated" age. Signs are not wanting to show that the unique position occupied by the mind is now challenged and that it is being gradually dethroned from its high position and given its rightful place in the scheme of things. This is due to the emergence of another faculty (phase) of consciousness, which is above the mental (see Tables 1 and 2) namely, Intuition. Whereas the characteristic of the mind is Separativeness, that of intuition is Union, Love and Wisdom. An intellectual giant would be a danger to society, but if his intelligence were wedded to love and wisdom he would be a blessing and a great power for good to society and the State. The ideal to be attained should be a mind illuminated by Wisdom and working under the direction of the spiritual Will. (Vide supra, Table 1.)

¹ See diagrams in Chemistry, Part II, this Series, for further study.—Ed.

² See also diagram 1, p. 276, Vol. I, Part II in this Series.—Ed.

EVOLUTION IN THE FIVE-FOLD UNIVERSE

(This Table explains why the present age is known as
"mind-dominated.")

PLANES	PLANES	SUB-PLANES	
I	1. The <i>Atmic</i> Plane. (Volitional) The Plane of the Will. The Plane of Unity.	1	Each plane has seven sub-planes. See in illustration the Mental Plane. Three sub-planes for the higher mind, one sub-plane for the middle mind, and three sub-planes again for the lower mind.
		2	
		3	
		4	
		5	
		6	
		7	
II	2. The <i>Buddhic</i> Plane. (Intentional) The Plane of Intuition. The Plane of Union, At-one-ment, Love, Wisdom. The "barrier-breaking" Plane, as it breaks the barrier which keeps one from one's fellow-men. (J. Krishnamurti)	1	
		2	
		3	
		4	
		5	
		6	
		7	
III	3. The <i>Mental</i> Plane. (Higher Mind) The Plane of the Abstract (Synthetic) Mind. The Plane of Individuality. (Imagination, Ideation)	1	
		2	
		3	
IV	4. The Plane of Antahkarana. (Middle Mind) The <i>Bridge</i> Plane or a lens through which the light of the higher passes to the lower.	4	
V	5. The <i>Mental</i> Plane. (Lower Mind) The Plane of the Concrete (Analytical) Mind. The Plane of Separativeness. (Ratiocination)	5	
		6	
		7	
V	6. The <i>Astral</i> Plane. The Plane of Feeling and Desire. The Plane of Motive Power.	1	
		2	
		3	
		4	
		5	
		6	
		7	
V	7. The <i>Physical</i> Plane. (The Plane of Action) The Plane of Precision.	1	
		2	
		3	
		4	
		5	
		6	
		7	

TABLE 2

... that in this series for further

• Marcault and Hawliczek describe the psychological phases of human evolution. These occur in the order given in Table 4. In all the evolutionary cycles which they have examined, whether of a man, a sub-race or a race, the same succession of phases has been observed by

Sequence of Phases of Consciousness them. They speak of two aspects of consciousness, subjective and objective. When consciousness is functioning through one phase at the subjective level, say the synthetic mind, then the phase below that, which is the analytical mind, acts as an objective phase. This means that when synthetic mind is esoteric to a sub-race, then analytical mind becomes an objective and exoteric instrument to that race. The numbers and the corresponding phases given in the Table are for the **SUBJECTIVE LEVEL** of Consciousness, the latter being put in italics.

The point to be noted in Table 4 is the place assigned to the Emotion principle. It is given opposite to No. 3, but here the subjective aspect of the phase is emphasized. The objective aspect of the Emotion phase comes opposite to No. 4 when the analytical mind is on the subjective level, as an examination of the table shows. And if emotion is a compound of "desire and intellect" then the Emotion phase inclines more towards No. 4 than No. 3.

Now H. P. Blavatsky (Table 3) assigns No. 4 to the Emotion principle. So it seems that the difference between the two viewpoints is more apparent than real and is due to different aspects being emphasized and different ways of describing them. It is possible I may be wrong in my interpretation. No. 3 is assigned by H. P. B. to the phase "desire and feeling" alone without mind or an incipient development of the mind. Of course there are no watertight compartments in nature, one phase beautifully gliding into the other, but the *sequence* of phases observed by both is the same. By far the best example given in illustration of the Emotion phase is that of the 4th Root Race, the Atlantean Race.

The Prostitution of Knowledge This race rose to a tremendous height in civilization. The chief causes which undermined this splendid civilization and brought about its downfall were the immense growth of wealth and luxury, greed and the prostitution of knowledge to personal gain. This means the combination of desire and mind which is emotion.

¹ Annie Besant, *A Study in Consciousness*, p. 348.

TABLE 3		TABLE 4			
SEVEN PRINCIPLES IN MAN (BASED ON THE TEACHINGS OF H. P. BLAVATSKY)		SEQUENCE OF PHASES OF CONSCIOUSNESS (AS GIVEN BY MARCAULT AND HAWLICEK)			
PRINCIPLES		PHASES OF CONSCIOUSNESS			
No.	NAME	No. OF PHASE	CONSCIOUSNESS CENTRED IN	NAME OF LEVEL	No. OF LEVEL
1.	Physical (dense)	1.	Perception	subjective	1
2.	Physical (subtle)	2.	{ Action Perception	subjective objective	2
3.	Vitality (Prana) Kama or desire-nature	3.	{ Emotion Action	subjective objective	3
4.	Emotion (Kama-Manas) ¹ (Desire + Intellect)	4.	{ Analytical Mind Emotion	subjective objective	4
5.	Mind (Manas)	5.	{ Synthetic Mind Analytical Mind	subjective objective	5
6.	Intuition (Buddhi)	6.	{ Intuition Synthetic Mind	subjective objective	6
7.	Will (Atma)	7.	{ Will Intuition	subjective objective	7

I hope the point we are discussing may lead to further research on this important subject and to the assigning of a *uniform* nomenclature relating NUMBER with the PHASE of Consciousness. (*Vide infra*.)

An analogy taken from the science of chemistry will make this matter of the relationship between number and stage of consciousness still more clear. Every student of chemistry is familiar with the grand generalization proposed by the great Russian scientist Mendeléeff—known after his name "Mendeléeff's Periodic Table of Elements"—in which a relationship is shown to exist between the atomic weights of the chemical elements and their physical and chemical

¹ Annie Besant, *A Study in Consciousness*, p. 348.

properties. When Mendeléeff arranged the elements known at his time in accordance with their rise in atomic weights he found that the elements arranged themselves in certain groups which he numbered 1 to 7, the elements belonging to a particular group resembling each other more than elements of other groups. When he made his table he left in it some

Periodic Table
of Elements

spaces open, as none of the elements then known fitted into those spaces, and studying the table as a whole he predicted that the elements belonging to these spaces, when discovered, would have certain physical and chemical properties.

The greatest merit of Mendeléeff's theory, which is now raised to the status of a law, was that the three gaps which he

Gaps in the Table

had left in the table were filled up by three elements subsequently discovered which were found to possess properties as predicted by him. The important point which is intended to be brought out from this analogy and examples is that once the *numbers* of a group and sub-group for an element are known, *i.e.*, its position in the table, one could easily describe the properties of that element, and conversely, from the study of the properties of an element one could easily say what position it occupies in the table. This important law discovered by Mendeléeff corroborates strikingly the viewpoint given in Theosophical literature

Relation between
Number and
Characteristics

relating NUMBER and CHARACTERISTICS. The number shows the psychological level or phase of consciousness, and the characteristics exhibited by a man or a sub-race or a root race represent that number. For example, when we speak of a fifth root race or a fifth sub-race or a fifth principle in man we invariably associate that number five with mind. Similarly number four is associated with emotion, and number six with intuition. Conversely, when we speak of consciousness working through the mind or at the mental level we always associate that with number *five*. (For characteristics of different phases of an Evolutionary Cycle, see pp. 274-277.)

And when the same number is repeated, say in a Chain,¹ in a Round, in a World Period, in a Root Race, in a sub-Race and in a sub-sub-race, for example, Number Four, which characterizes Emotion (a product of

1	7	Sub-Races	make	1	Root Race,
	7	Root Races	"	1	World Period,
	7	World Periods	"	1	Round,
	7	Rounds	"	1	Chain,
	7	Chains	"	1	Scheme of Evolution,

desire [passion and greed] and mind), we can imagine what type of civilization such a combination would bring forth.

The Mighty
Atlantean
Civilization

Occult Tradition says that the world during the great Atlantean (*Fourth* Root) Race, passed through a mighty civilization typifying this combination, (4th Chain, 4th Round, 4th World Period, 4th Root Race, 4th sub-Race) a civilization which has not yet been surpassed. But this splendid civilization disappeared "despite the glory of its achievements and the might of its empires" for, "know-

Its Destruction

ledge was prostituted to individual gain and control over the power of nature was turned from service to oppression".¹

One could as well predict that a similar catastrophe would be awaiting humanity when purely mental (scientific)

A Prediction

civilization reaches its zenith or rather its nadir, when a similar combination with regard to *Number Five* (fifth phase, when consciousness is centred in mind) is reached, but that will be in the distant future. Even that catastrophe may be averted by the emphasis of that phase on its own highest note, the social sense. At the present day, too, we are passing through an unalloyed mental phase civilization (known also as Western or technological civilization), except for the fact that we are passing through the Fourth Round and not the Fifth, and we

Western
Technological
Civilization

see before our very eyes the dire results of that combination namely that: "the conquests of science . . . have become agents of enslavement, exploitation, and destruction . . . perversion of scientific knowledge and achievement

in the wholesale slaughter of modern warfare . . . starvation in the midst of plenty . . . the mechanization of man's mind and soul . . . " ² Whether the world will pass through the crisis which at present threatens it, will depend upon how far the statesmen of different countries, *understand-*

Perversion of
Scientific
Knowledge

ing the great scheme of Evolution, are prepared to adopt the policy of sacrifice and co-operation, negotiation and sweet reasonableness and give up the policy of selfishness, force and aggression in the settlement of disputes which seem to be anachronisms today, being reminiscent of the characteristics of the savage and semi-civilized races.

An Anachronism

¹ *Man: Whence, How and Whither*, p. 132, Adyar Edition, 1947.

² *And What of Art?* by Claude Bragdon, this Part.

The aim of this series—*Where Theosophy and Science Meet*—is to give a deep understanding of the great drama of creation and evolution, of the constitution of man and the universe and their intimate relationship, and of the purpose and goal of life. With such a deep insight and understanding of the laws of life man is set on the high and royal road to Self-exploration.¹ The whole plan of evolution as given in

The Royal Road to
Self-exploration

Theosophical literature is so unique and soul-satisfying and the destiny of man so glorious that once having glimpsed it, not by study alone but by actual life, man cannot go back to the life of the senses and of the mind, for he now sees life from a new angle, from a higher dimension. He feels new life rushing through him and finds new solutions for life's problems. He does not rest now till he finds his true centre. Having found it he knows what is *his* part in the great drama of Evolution and so plays it to perfection.

We shall conclude this last part by striking the same note that we struck when we began the first part of this series. Let us repeat once again that we yield to none in our veneration

Striking the same
Note

and respect for the great scientists who have changed our outlook on life by giving a new orientation to scientific thought, nor in our admiration of the scientific method, the value of which as an instrument of research we fully appreciate. The points we wish to bring out are few and simple. We say that so far as the investigations of purely physical phenomena go,² there is no other method which could compare with the scientific method in these investigations. Let the scientists carry on this useful work, and there is an ample field for research, for we have by no means come to the end of research in this physical universe of ours. And there is no fear of there being any dearth of subjects of research for perhaps hundreds of years to come.

But we are not living in the physical universe alone. Science says there may be other invisible worlds existing as real as the external world of physics.³ If there are other invisible worlds, formed of different and subtler types of matter, and if the laws of the physical world are not found to hold good in these worlds, as "strict causality, a cardinal assumption in science, does not seem to

Invisible Worlds

¹ Vide *The Thrill of Self-exploration*, Part III, this Series.

² The scientific method of inquiry had served the scientist remarkably well in his investigations in a man-sized world but is found to be insufficient for the astronomical world and to fail completely in the world of atoms and sub-atoms (Review of *Physics and Philosophy*, by Sir James Jeans, *Science and Culture*, January 1944, p. 259.)

³ Eddington, *New Pathways in Science*, p. 26.

apply in atomic and subatomic phenomena",¹ and if the vibrations obtaining in this unique type of matter of the subtler invisible worlds are of such a nature that they do not affect the most delicate instruments invented by the scientists, then we say that it would be worthwhile for the scientists to try the occult method of investigating phenomena in these worlds. It should be noted here that the occult method of investigation is not a departure from the scientific method but merely an extension of it.²

In both scientific and occult methods a certain training and discipline are necessary. But the superiority of occult training and discipline lies in this that it has in addition the power to bring about a change of heart and convert a man "from a selfish, fighting, exploiting *animal* that he is to an unselfish, loving, co-operating *human being*, willing to share his all with others".³ The scientific training and discipline do not possess this power of changing the heart of man. They may make him an intellectual giant but not a good man, clean in life and pure at heart, so as to prevent him from exploiting the poor and the ignorant, the weak and the helpless. Their motto is Truth, but not Truth and Justice. Hence we find the present materialistic civilization threatened, for it rests on weak foundations.

We have not far to go in search of examples to show that man is still using the methods of barbarians and semi-civilized races in the ways in which we find innocent men and women harassed and persecuted, hunted down and murdered simply because by birth or by profession they happen to belong to a particular race or religion, union or association. And the callousness with which the slaughter and persecution are carried out is truly heart-rending.

Constituted as man is (whether scientist or not) he is an explorer⁴ and in this Self-exploration the scientific method will not help him very much if it is not supplemented by the occult (theosophical) method, and if science and knowledge are not guided by wisdom. Therefore the case for the advocacy and adoption of the occult (theosophical) method of discipline⁵ becomes overwhelmingly

¹ J. W. N. Sullivan, *Limitations of Science*, p. 193.

² See p. 2, Part I, Vol. I, this Series.—Ed.

³ See p. 8, Part I, Vol. I, this Series.—Ed.

⁴ See the article on *The Thrill of Self-exploration*, in Part III, this Vol.

⁵ See Introduction, p. 14, Part I, Vol. I, this Series.—Ed.

powerful considering the shame and the tragedy through which the world has been passing for the last many years.

Even if no economic and political problems remain to be solved, even if all material benefits are equitably distributed amongst all the peoples of the world, even then " pain, depression, fear and loneliness will still exist and will cause even greater suffering than the denial of any material benefit ".¹ The riddle of life will be still as far from solution as before. What is life? What is death? Is there no purpose in life? What is man's goal? Is there immortality? Is there no peace, no perfection anywhere? These real problems of life cannot be solved by science alone, by knowledge alone, nor by any external agency alone. They will have to be solved by the individual for himself, through the wisdom which he acquires in his process of Self-exploration and Self-development as he pursues the study and practice of Occultism, whether we call it the Ancient Wisdom or Theosophy.

The characteristics of the different phases of the evolutionary cycles and of the " old order " and the " new order " referred to in this monograph are given in the appendix which follows.

D. D. KANGA

¹ See the article on " The Government of the World " this part.

APPENDIX¹

CHARACTERISTICS OF THE THIRD PHASE OF ANY EVOLUTIONARY CYCLE²

Desire-nature.

Kamic Principle.

The predominance of physical nature swayed by Kama or desire and guided by the incipient mind.

Not yet self-conscious.

Not yet fully urged by the individual principle.

Activity impelled by Kama or desire-nature.

Root Race-Lemurian.

Subjective phase of consciousness, emotion.

Objective phase of consciousness, action.

CHARACTERISTICS OF THE FOURTH PHASE OF ANY EVOLUTIONARY CYCLE²

Emotion { Desire
(Desire + Intellect)
Mind

Kama-manas or desire-nature with mind obeying its impulses.

Here consciousness rises from the pure desire-nature to the emotional level by the working of the concrete mind.

No emotion is possible except by the interaction of desire and lower mind.

Root Race, Atlantean.

¹ Read (1) *The Next Step in Evolution*, by Marcault and Hawliczek for a thorough understanding of the phases of consciousness of the different races and sub-races; also (2) *Studies in Evolutionary Psychology*, by Preston and Trew.

² See p. 268, this part.—Ed.

Easy response of the members of the Fourth Root Race to psychic impressions.

Self-conscious.

Deductive method of Research.

Subjective phase of consciousness, Analytical Mind.

Objective phase of consciousness, Emotion.

CHARACTERISTICS OF THE FIFTH PHASE OF ANY EVOLUTIONARY CYCLE¹

Mind, mental consciousness—(Dominant Principle).

Mind { analytical, concrete.
synthetic, abstract.

Here consciousness rises from the lower mental to the higher mental, from the analytical to the synthetic mind, from the concrete to the abstract mind.

Root Race, Aryan.

Fourth Sub-race, Keltic,² Logical mind ; the analytical mind division of the higher mind Race.

Fifth Sub-race, Nordic or Teutonic, Purely mental. Specialization, Individualization. Making an organ.

Sixth Sub-race (in the process of formation). An understanding mind. Principle of correlation, of organization.

Seventh Sub-race (future) Synthetic Principle. Intellectual recognition of oneness, "Together even though differently".

"Do so and so and follow me".

To conquer by power.

Energetic, strongly individualized.

Intolerant ; proud ; critical ; fault-finding.

Impatient with the weakness and mental dullness of others ; "the weak go to the wall".

"This type and civilization sees in weakness a field to exploit, a thing to enslave, something to trample under foot in order to rise on it, and not something to help to exist for itself".

The mark of the fifth sub-race is the demanding of rights.

The sense of individual ownership ; my, mine ; my property etc.

¹ See p. 268, this part.—ED.

² For other sub-races of the Aryan Race, see *Anthropology*, Part III, this Series.—ED.

Individual and class trade antagonism and struggle.

Cut-throat competition : no compunction in destroying one's rival and ruining him.

Lower mental : Scientific method : observation, classification, generalization.

Higher mental : metaphysical ability ; great philosophical profundity of thought.

Lower Mental is a reflection of the Higher Mental which is MANAS, part of the spiritual body (Atma, Buddhi and Manas).

Inductive method of Research.

Subjective phase of consciousness, Synthetic Mind.

Objective phase of consciousness, Analytical Mind.

CHARACTERISTICS OF THE SIXTH PHASE OF ANY EVOLUTIONARY CYCLE¹

Intuition ; pure, compassionate Reason—(Dominant Principle).

To rule by wisdom.

To conquer by love.

Union and co-operation.

" Let us advance together to a goal that we all realize as desirable of attainment ".

To lead by love, sympathy, and comprehension and not by dominance of an imperious will.

To help the weak, the ignorant and the degraded.

Keynote is Brotherhood.

Tenderness is the mark of power.

" A synthesizing spirit (utilizing the most different capacities, finding each its place and welding all together into a strong whole) ".

Communal life.

A sense of unity.

A breadth and liberality of tolerance.

A great sense of duty.

New ideas of competition. Competing with oneself ; to get better tomorrow than today.

A great indifference to what are called rights. " Every right grows out of a duty discharged " (Mazzini).

¹ See p. 268, this part.—Ed.

Calm, patient and receptive in face of an apparent wrong ; taking injustice as a debt that is paid and cancelled.

Self-sacrifice. " Sacrificing your own whims, wishes, wants, every day of your life, for the sake of making life easier for those around you ".

Greater pleasure in giving than in receiving.

The joy of sharing.

To use strength for service.

A civilization in which the greatest freedom expresses itself in the greatest service.

To lessen the struggle for all.

To discover the soul in the beautiful little things of life.

To have a very sensitive, delicate nervous system hand in hand with perfect balance, sanity and health.

Subjective phase of consciousness, Intuition.

Objective phase of consciousness, Synthetic Mind.

D. D. K.

"THE OLD ORDER CHANGETH, YIELDING
PLACE TO NEW "

OLD ORDER

General

Outlook, narrow.
Understanding, limited.
Life, mainly physical, emotional
and mental and therefore partial.

Scant respect for Ancient Wis-
dom.

Teachings of Ancient Wisdom,
"babblings of a child humanity".
(Max Muller)

NEW ORDER

General

Outlook, broad.
Understanding, deep.
Life, whole, richer, nobler because
it is also spiritual and therefore
more inclusive.

Great respect for Ancient Wis-
dom.

"We Europeans are not the only
people on the earth. We are just
a peninsula of Asia and on the con-
tinent there are old civilizations
where people have trained their
minds in introspective psychology
for thousands of years, whereas we
began with our psychology not even
yesterday, but only this morning.
These people have an insight that
is simply fabulous, and I have to
study eastern things to understand
certain facts of the unconscious".¹

(Carl Jung)

¹ Psychology, III, 188. (The Monograph on Psychology, Part III of this series, p. 188).

OLD ORDER

General

Theosophy, a speculative philosophy.

Mind in Nature

World process indicates a mind at work.

Two worlds, the human and the natural.

Man and the Universe.

Man

Man, a mere superior animal.

Man, a mechanical, chemical and electrical machine.

Man is a body and *has* a soul.

Lack of harmony within man, (*i.e.*, between his thoughts, desires and actions) cause of the present chaos.

NEW ORDER

General

"It is impossible not to feel the greatest respect for Madame Blavatsky's writings on this subject, What is the Soul?; of respect, and if the word be permitted, of admiration. Writing when she did, she anticipated many ideas which, familiar today, were in the highest degree novel fifty years ago".

(From an article by Prof. C.E.M. Joad on "What is the Soul?" in *The Aryan Path*, May 1937).¹

Mind in Nature

The Universe is the expression of Life, Thought, Consciousness.²

Man, an expression of the universal mind.

One world and only one Life within the infinite variety of different forms.³

Man

Man, a philosophizing animal, a spiritual being.

Man *is* a soul with several sheaths, through which he expresses himself.

Greater harmony through a deeper insight and understanding of the laws of life.

¹ Introduction, J. 5.

² W. Kingsland, *The Physics of the Secret Doctrine*.

³ Whither Science, II.

OLD ORDER

Man

This leads to a lack of adjustment between the individual and society, the individual and the State, and between national and international interests.

War and revolution *without* to end the chaos.

War within leads to war without.

Material linking of the different parts of the world through the achievements of science (radio, wireless, cinema, aeroplane, etc.); also on account of common suffering and calamity on a large scale, brought about by wars, floods, fire, plague, pestilence, famines, earthquakes, volcanoes, etc.

Centrifugal force in man, very active.

Discipline imposed from without.

The omnipotence of the State.
The eclipse of the individual.

¹ Epilogue, IV.

² *Ibid.*

³ I, 14.

⁴ I, liv.

NEW ORDER

Man

This will lead to: right adjustment between the individual and society (the State), between national and international interests.¹

Revolution *within* oneself to control and harmonize the warring elements and attain peace.

Peace within leads to peace without.²

Material as well as *Cultural* union.

Intellectual recognition and emotional experience of the *unity of life*.

"International unity based upon correct world objectives and true psychological understanding".

Balance between the centrifugal and centripetal forces in man.

Self-imposed discipline based on a knowledge of the laws of life.³

Recognition of the freedom of the individual.⁴

OLD ORDER

NEW ORDER

Man

Man

Human individual, a mere automaton for the benefit of the state or nation.

Regimentation of thought and reason.

Suppression of public opinion.

Exploitation of society for the benefit of the individual.

Suppression of the individual in the interests of society.¹

A vague distorted, perverted view of life.

Groping in the dark.

The promotion and defence of the freedom of thought.

Complete Self-expression.

Right adjustment between the individual and Society.¹

A true sense of values.

A deeper insight into the laws of life.

*Race*² (Present)

*Race*² (New)

1. To have.

1. To be.

2. Seeking to grasp.

2. Living to give.

Joy in giving.

3. Competition :

3. Co-operation :

(a) School: To outrival the other student, in learning, in sport.

Transmuted competition.

All will vie in giving others what they would most desire themselves.

(b) Life: To put others into the shade.

(c) Life-poisoning.

(c) Life-increasing.

4. Destructive.

4. Constructive.

(Cyclones, earthquakes, floods, fire)—

The Elements themselves will co-operate and will no more destroy through cyclones, earthquakes, floods, fire.

Result of destructive thoughts.

¹ I, liv.

² With grateful acknowledgments to the two authors of the article *The Spirit of the Unborn* by Two workers (T. P. H., London).—ED.

OLD ORDER

Race (Present)

5. Sex Contrast.
6. Knowledge, scientific knowledge (Process).

From the outside in.

7. Led by intellect. (Impression on the brain from outside).

8. Religions.
(doctrines, dogmas, rites, creeds).

9. Surrounded by ugliness (Beauty of the senses).

10. Stoops under a load of suffering.

11. Marked by separateness
(prides himself on what he has that others do not have).

12. Attached.

13. Personal.

14. Limitation holds the present [old] race in bonds, you are imprisoned, vastly limited in your self-expression, even if you know it not! Your selfishness restrains you; your materialistic intellect confines you; your separative principles entomb the real "You".

Evolution, a theory.

Evolution, symbolized by a straight line.

Growth and progress, in a continuous straight line.¹

¹ Chemistry, II, 304-5.

NEW ORDER

Race (New)

5. Sex Equality.
6. Wisdom (process).

From the inside out.

7. Led by intuition. (Tuition from within).

8. Religion.
(no doctrines, dogmas, rites, creeds).

The reunion of man with God, individually accomplished.

9. Enveloped in beauty (Beauty of the Spirit)

10. With lifted head, will reflect the light from heaven which is the purest joy.

11. Distinguished by unity,
(seeks that which unites).

12. Detached.

13. Impersonal.

14. New race throwing off all shackles will attain to liberation, (liberation from all ignorance, all suffering, all woes, by unfettering your true self by subjugation of your "self" !)

Evolution, an action.

Evolution, symbolized by a spiral.

Evolution proceeds through cycles.

Growth and progress, marked by rises and falls.¹

OLD ORDER

NEW ORDER

Truth, static, mere abstraction.

Truth, dynamic, a creative energy.

Science and Philosophy

Science and Philosophy

Materialism and positivism.

Idealism and spiritualism.

Matter, a basic reality.

Matter-Atom, a bundle of waves,
a vortex of energy.

Atom, rigid like billiard balls.
Energy, a property of matter and
secondary to it.

Matter, a form of energy.
Energy, primary ; matter, second-
ary.

Matter and energy are two distinct
things.

Matter and energy are intercon-
vertible.

Present chaos, due in a greater
measure to the spread of materialistic
philosophy of the 19th century.

Expecting a better state of affairs
due in a greater measure to the
acceptance of the spiritualistic philo-
sophy of life.

World lost in the mazes of mere
matter.

Theosophy, the practical Science
of Life, shows experimentally a way
of life, by going to the root of it.

Universe, static.

Universe, dynamic, living.

Universe, dead mechanism.

Universe conceived as a process,
a movement, a stream of events.

Universe, as a bud growing into
a flower which reveals a new wisdom
and new beauty.¹

Science *alone* can solve all our
problems.

Science *alone* cannot solve all our
problems. A spiritual background
is necessary.

"Everything flows" (Heraclitus).

The Law of Causality.

"Principle of Indeterminacy"
(Heisenberg).

¹ Methods of Research, II.

OLD ORDER

Science and Philosophy

No aim and purpose in life, blind chance ruling the universe.

Science considered all-supreme, capable of solving the "Riddle of the Universe".¹

Pursuit of knowledge for its own sake. No responsibility to society.

Science has been made a hand-maid of politics and prostituted "to the service of the sword and the purse".

Modern science lacks humane and spiritual guidance.

Scientific method halts at the borderland phenomena—at the sub-atomic world.²

Study of the universe, emphasis on the outer and the visible.

Study of man, incomplete, by the scientific method alone.

Specialization.

NEW ORDER

Science and Philosophy

There is a design in nature. The universe is one of law, not of chance.¹

Science now recognizes her limitations and is becoming humble.

Science is now beginning to recognize her responsibilities to society.

"Science and Social Relations", now an important subject of study, discussion and research.

Science of to-morrow (occultism) will be humane and spiritual.

"The truly significant change in modern science is the change in its metaphysical foundations".²

Study of the universe, study of both the visible and the invisible. Study of both the denser physical world and the other subtler, supersensuous worlds penetrating the denser.

Man, studied as a whole both by the scientific and occult methods.

Co-ordination and synthesis of all sciences, philosophies, religions and cultures.

¹ *The Great Design*, edited by Frances Mason.

² "The Riddle of the Universe", by Haeckel.

³ *Physics and Philosophy*, by Sir James Jeans.

⁴ J. W. N. Sullivan, *Limitations of Science*.

OLD ORDER

Science and Philosophy

The world of experience, limited to sense-perceptions only; all else, speculation.

"Nothing enters the human mind except by way of the senses".¹

Intellect alone capable of solving the mystery of existence.²

Exaltation of analytical mind.

Science alone does not give a complete picture of Reality.

Genius is a freak of nature.

NEW ORDER

Science and Philosophy

The world of experience includes all kinds of experience—sense-perceptions, mystic or religious experience, intuitional and occult, moral, æsthetic, etc.

Extra-sensory Perception.¹

New frontiers of the mind.¹

To discover "Whether anything enters the mind by a route other than the recognised senses".¹

A growing distrust in the mere intellectual thinking to solve the mystery of existence.

Intellect supplemented by intuition and spiritual experience will help to understand Reality fully.²

Liberation from the tyranny of mind, giving it its proper place in the scheme of things.

Science and Theosophy together give a fuller and more comprehensive picture of Reality.

Belief in the possibility of human perfection, for that is the goal of humanity.

Belief in the existence of Supermen and the Occult Hierarchy.

Avatāras and Rishis (great sages and saints), being the natural fruits and flowers of human evolution.

¹ J. B. Rhine, *Extra-sensory Perception and New Frontiers of the Mind*.

J. Hattinger, *The Ultra-Perceptive Faculty*.

² Philosophy and Theosophy, III.

OLD ORDER

Science and Philosophy

Vague references to the correspondence of principles in Man and Nature.

Man is a miniature universe.

An atom is a miniature solar system.

Intellect : its tendency is separatist and discursive.

Consciousness—focussed in emotions and lower (concrete, analytical) mind.

Modern Science does not investigate *all* nature.

Domain of science, narrow.

Methods of science, rigid, inelastic.

NEW ORDER

Science and Philosophy

Belief in a thorough-going correspondence of principles in Man and Nature.¹

Whatever exists in the microcosm must exist in the macrocosm.

The cosmos is an individual (organism) on an extended scale.

"As above, so below".

"Intuition . . . takes intellectual conclusions to a deeper synthesis. Intuition is beyond reason, though not against reason".

"Any sound rationalism will recognize the need for intuition". (Radhakrishnan)¹

Both intellect and intuition will work together.

Consciousness—focussed more in higher (abstract, synthetic) mind and intuition.

"Science is under bonds, by the eternal principles of honour, to look fearlessly in the face of every problem that is presented to her". (Sir W. Thompson).²

The broadening of the method of science and the inventing of a new technique of investigation,² because

¹ Philosophy and Theosophy, III.

² Methods of Research, II.

OLD ORDER

NEW ORDER

Science and Philosophy

• *Science and Philosophy*
man, the investigator, is an evolving being.¹

"Beating the same pathways of research".¹

"Seeking out a new approach".²

The standard of observation and report by those who claim to possess psychic faculties—not rigid.

The exacting of a rigid standard of observation and report by those who claim to possess psychic faculties.

Modern Scientist, his equipment : keen intellect, powers of observation, concentration, reasoning, judgment, truthfulness, honesty, accuracy, precision, patience, perseverance.

Future Scientist, his equipment : Over and above all the qualifications of the modern scientist, a clean life, an open mind, a pure heart, a compassionate nature, altruism, a training in introspection and spiritual meditation.

A superficial attention drawn to the subjects of spiritual philosophy.

A deeper study, research and insight of the most important subject of "meditation" which is "the key that opens the mysteries of the universe".³

Mind-control alone considered sufficient to solve the knotty world problems.

A loving-kindness which expresses itself in service is indispensable side by side with a controlled mind.

A partial view of life.

A comprehensive view of life.

A fragmentary view of life based on the study of man in the waking state alone.

A correct and more comprehensive view of life based on the study of "the Fourfold Being of Man",

¹ Whither Science, II.

² J. B. Rhine, New Frontiers of the Mind.

³ Philosophy and Theosophy III.

OLD ORDER

NEW ORDER

*Science and Philosophy**Science and Philosophy*

(man exists in four states, namely) waking, dream, dreamless, and Turiya (the fourth).¹

Study of

Normal consciousness,
Sub-consciousness.

Study of

Normal consciousness,
Sub-consciousness,
Super-consciousness.

Method of study

Scientific and psychological.

Method of study

Scientific, psychological and occult.

Diagnosis, incomplete ; examination of parts.

Diagnosis fuller ; the understanding of the whole man.

Dual conception of man's constitution :

Triune conception of man's constitution :

Body, mind.

Body, mind, spirit.

Mind

A closed mind.

Mind

An open mind.

Mind-ridden. Mind-dominated. Exaltation of analytical mind.

Liberation from the tyranny of the mind.

" Mind sees life and form as two separate interweaving currents " .²

The transcendence of mind as a means of experience by the direct apprehension of the intuitive principle.³

The technique of mind is dualistic ; examiner and the object to be examined.⁴

The technique of intuition is " to enter into complete union with the object " so that the " object becomes a mode of self-expression of the investigator " .⁵

¹ Turiya is the state beyond dreamless sleep, the highest spiritual consciousness for the individual concerned.—ED.

² From Mineral to Man, II.

³ Whither Science, II.

OLD ORDER

Methods of Research

Discovery of truth, by the method of trial and error.

Technique of intelligence.

Inductive method.

Analytical mind, an instrument of research (synthetic mind, at the subjective level of consciousness).

Object of Research

Collection of facts, their classification and deduction of principles.

Examination of facts in an endeavour to know the principles of the universe, the question being "How?"¹

Statecraft, Economics, Politics

Might.

Objective: Efficiency.

Attitude: Aggressiveness.

War for getting raw materials, power, monopolizing foreign markets.

NEW ORDER

Methods of Research

Discovery of truth, by experience of mysticism, of knowledge which is intuition.

Intuition is in-tuition, interior knowledge, in-sight.

Technique of intelligence and intuition; use of both.

Inductive, metaphysical and occult methods.

Analytical mind and synthetic mind, both become instruments of research.

Object of Research

Over and above the classification of facts and deduction of principles, recognition and understanding of the principles as modes of manifestation of One Life in which all things "live and move and have their being".¹

Experimentation of forces in an attempt to realize the life of the universe, the question will be "Why?"¹

Statecraft, Economics, Politics

Right.

Objective: Character.

Attitude: Sweet reasonableness.

International co-operation for pooling together all the natural resources and all intellectual, moral and spiritual forces for production,

¹ Whither Science II.

OLD ORDER

Statecraft, Economics, Politics

Dead policies :

Distrust, suspicion, fear, hatred,
war.

Invading a country without a
formal declaration of war.

One man rule, a dictator.

Considering treaties, as scraps of
paper. No respect for pledged word.

Force.

Sword.

Use of threat, violence and brute
force to settle disputes and dif-
ferences.

Suppression and eclipsing of the
individual.

Destruction of the individuality
of man.

Human being, a cog in the wheel
of a giant machine.

The sapping of the foundations of
the State by the denial of brother-
hood.

NEW ORDER

Statecraft, Economics, Politics

transportation and equitable dis-
tribution of all the necessities and
amenities of life.

Live policies :

Pure conscience, trust, under-
standing, love, peace.

Rule of Law.

Invading a country only after
delivering an ultimatum and a
formal declaration of war.

Rule by Representative Govern-
ment.

Respect for pledged word and
treaties.

Arbitration.

Reason.

Amicable solution of disputes by
discussion.

Settlement of international differ-
ences by peaceful means.

Liberty and freedom of the in-
dividual.

Emphasis on the individuality of
man, his development and happiness.

The strengthening of the founda-
tions of the State by the affirmation
of brotherhood and basing its policy
thereon.

OLD ORDER

Statecraft, Economics, Politics

Narrow aggressive nationalism.

International anarchy.

No knowledge of the existence of a Plan of which the political and other epoch-making changes are the unfoldment and fulfilment.¹

The purpose of each nation is "to entrench and organize itself so as to secure the greatest possible benefit for its patriots alone".¹

World Peace :

It is too much to expect a nation to think of World Peace when "war" is considered to be a "biological necessity" for securing a place in the sun and having a scope for fulfilling and developing its necessity.

NEW ORDER

Statecraft, Economics, Politics

Internationalism.

Public International Law.

Permanent Court of International Justice.

International Morality.

The League of Nations (reconstituted).

The United Nations Organization.
International Police Force.

Recognition of the value of the understanding of the scheme of evolution and the laws of life which are mere expressions of that scheme.

New Order "conceives of each nation as an organized unit of Humanity with the special purpose of giving a particular emphasis to certain special characteristics in the people of that Nation, which shall be a contribution to the welfare of the world as a whole".¹

World Peace :

"To secure World Peace by
(a) the establishment of a World Authority ;
(b) the establishment of an effective International Control ;
(c) the establishment of a Charter of Brotherhood and Human Rights".¹

¹ The Government of the World, IV.

OLD ORDER

Statecraft, Economics, Politics

Thinking more of rights and privileges than of duties and responsibilities.

Party System.

Fascism, Nazism, Communism, Dictatorship, autocratic Monarchy. Power Politics. Politics, the catspaw of those with "a glib tongue and long purse".

Adult franchise.

Ignoring of Minorities.

Wanton destruction of food and materials though millions are famishing, half naked and without a roof to sleep under.

"Would human beings, living in a world of plenty, allow millions of their fellow beings to die of want?"
Answer: yes! (unfortunately).¹

Overproduction, a curse.

Deliberate under-production of foods and goods.

Starvation in the midst of plenty; no desire and will to distribute evenly and share with others.

¹ The Government of the World, IV,

NEW ORDER

Statecraft, Economics, Politics

Thinking more of duties and responsibilities than of rights and privileges.

The breaking up of the Party System; government by the whole nation.

Democracy: government by the wise, by trained, experienced, *unselfish* workers.

A graded franchise.¹

Safeguarding of Minorities.¹

To secure for all people the basic necessities of life, such as food, clothing and shelter.

"Would human beings, living in a world of plenty, allow millions of their fellow beings to die of want?"¹ Answer: *no*.

Planned production.

Deliberate underproduction, unthinkable.

Superabundance of materials: and a will and desire to provide and send help where help is needed.

OLD ORDER

Statecraft, Economics, Politics

The question of production and transportation solved but not the question of distribution.

Each nation tries to be self-sufficient in everything, whether fitted by nature or not.

Wealth and financial system in the hands of a few vested interests.

Unemployment and misemployment.

Motive : private profit.

Production : whimsical.

Socialism : levelling down.

Capitalist Economy based on individualism and on the use of science to subdue nature.¹

Each for himself.

"Every man for himself and the devil take the hindmost".

NEW ORDER

Statecraft, Economics, Politics

A satisfactory solution of production, transportation and also of distribution.

Each nation co-operates with every other nation and makes its own unique contribution to the welfare of all humanity.

Wealth and financial system under the control of the people.

Right employment for all. Shorter hours of work.

Utilization of leisure for cultural pursuits.

Motive : service of the community.

Production : planned for the needs of the community.

Socialism : levelling up.

Socialist Economy where the use of science will be collective for the material good of all.¹

Communist Economy : belongs to the future. This will be the stage of "From each according to his capacity, to each according to his need"¹.

"Each for all, all for each".

¹ *The Problem of Economics*, (Lecture Notes) by Rohit Mehta, *The Indian Theosophist*, August 1950.

OLD ORDER

Social Processes

Competition with another.

No compunction in crushing or destroying another, one's rival.

Cut-throat competition leading to unhealthy rivalry, hatred and war.

Competition, Destruction.

Grabbing, Personal, Attachment.

Sight. Tuition.

Scientific knowledge. Intellect.

Religiosity

Limitations.

To have.

Uniformity.

A partial outlook of life.

Going different ways *because* different.

Gossip, criticism, fault-finding.

Education

Method: Filling from without.

Repression of emotions, resulting in emotional complexes.¹

Repression of lower functions.

¹ Education, IV.

² Psychology, III.

NEW ORDER

• *Social Processes*

Competition with oneself.

Team spirit.

There is no rivalry with another.

One tries to improve oneself and one's methods of work, products etc., so that all may be better to-morrow than they are today.

Co-operation. Construction.

Sharing, Giving, Impersonal, Detachment.

Insight. Intuition.

Wisdom. Intuition.

Religion.

Liberation.

To be.

Unity.

A synthetic view of life.

Going together *though* different.

Charity in thought and speech.
Appreciation.

Education

Method: Unfolding and releasing from within.

Direction of emotions along right avenues of human expression and their sublimation.

Subordination of lower functions and their adaptation to the higher and wider functions to achieve the higher end.²

OLD ORDER

NEW ORDER

Education

Enforcing discipline from without.

Dogma of authority and tradition.

Indoctrination.¹

Emphasis on economic utility of education.

Environmental determinism.

Individualism and self-assertion.¹

Sensation, emotion, mentation.

Emphasis only on the development of the mind and body.¹

Ethics

Standard of morality, rigid, based on authority from without.

Education

Self-imposed discipline based on knowledge and love.

Emphasis on first-hand experience (cf. laboratory experiments)

Helping a child to solve his own problems.

Creative living and use of leisure for cultural pursuits.

Determinism of environment by Life.

The understanding of different types and adaptation to them.

Recognition of the unity of life.

Social-mindedness. Broad-mindedness.

Social sense. Altruism.

Universal sympathy.¹

Sensation, emotion, mentation, intuition.

Wholesome integration of personality.¹

Ethics

Standard of morality—elastic, based on the theory of Relativity; laws of conduct based on one's knowledge and on authority from within.

¹ Education, IV.

OLD ORDER

*Art*¹

Machine Age, æsthetically sterile, without a spiritual philosophy. Perversion of scientific knowledge; the world cries out in pain and suffering.

Quest for Truth: through the reason.¹

The scattering of artistic forces.

Science without the mellowing influence of art.

Architecture: static, crystallized.

Conservative, traditional.

Eclectic.

Form determines function.²

*Law*²

Punishment: Deterrent.

Capital punishment.

¹ And What of Art, IV.

² Law, IV.

NEW ORDER

*Art*¹

Spiritual fermentation finds an outlet in art.¹

Influx of spiritual light.

Quest for Truth: through the intuition or creative imagination.¹

Flowering of art. Spiritual upheaval.

Rapport between Western Science and Eastern Transcendentalism.

Architecture: dynamic, revolutionary.

Revolt against the traditional styles.

Functional.

"Form follows function"; but the archetype is not the *machine* but the organism, (beauty of utility).¹

*Law*²

Punishment: Reformative.

Criminality, a disease.

Criminal, a sick patient and to be treated as such.

Reformatory School for offenders, both juvenile and adult.

Introduction of ameliorative conditions in prison life.

Abolition of capital punishment.

OLD ORDER

NEW ORDER

Medicine

The *mechanism* of life, emphasis on :

Detailed investigation of the *form*.

The ignoring of the integral relationship between the physical, physiological, chemical, electrical mechanism of the body and the psychological and spiritual aspects of consciousness.¹

Structure of bodies, coarse; less responsive to the finer vibrations coming from the subtler worlds.

Little respect for the rights of animals.

Divorce between science and religion.¹

Vivisection.¹

Exaltation of utility over moral values and of expediency over righteousness.

Psychic Research

Interest in the study and investigation of psychic phenomena.

Deliberations of the Society for Psychic Research.

Medicine

Synthetic view of life.

Study, investigation and examination of the *whole man*.

Study of the psychological factors associated with and causal to many diseases.¹

Structure of bodies, finer, more responsive to the finer vibrations coming from the subtler worlds.

Increasing kindness for animals and greater respect for all forms of life.

Recognition of the "principle that truly profitable methods of research will be ethically sound and that really preventive medicine is always bound up with, and conducive to, the cultural progress of mankind".¹

Psychic Research

Collaboration of persons possessing psychic faculties with scientists for experiments.

Greater attention to the study and research in Modern Psychology.

Recognition in the West of the great value of ancient Indian Psychology.

¹ Medicine, IV.

OLD ORDER

Psychic Research

Thoughts, feelings, desires and emotions of a person are merely subjective and do not affect his surroundings.¹

Physiology

Function, an epi-phenomenon of the organ, *i.e.*, a mere state of activity of the organ.

Materialistic determinism.

Very little knowledge regarding the pituitary body and the pineal gland.

Separate treatment of Biology and Physiology (Faculty of Science), Psychology (Faculty of Arts), Medicine (Faculty of Medicine).

Little co-operation between students of physiology, psychic science and Theosophy.

*The Etheric Double**

The *Etheric Double* (described in Theosophical literature) is the same

* Psychical Research, III.

* Physiology, III.

* Western Scientific Research and the Etheric Double, III.

NEW ORDER

Psychic Research

Greater approach through scientific research into occult phenomena to some fundamental ideas of Ancient Occultism and Modern Theosophy.

Thoughts, feelings, desires and emotions of a person are objective and affect his surroundings.

Physiology

Function transcends, creates and directs the organ.²

Individualism ; functionalism.

A deeper and more extensive knowledge of the pituitary body and pineal gland and their relationship with each other.

Synthesis of Biology, Physiology, Psychology and Medicine as the Science of Man and of his health.

Greater co-operation between students of physiology and psychic science to vindicate the ancient teachings of Theosophy by translating its metaphysics into experimental science.

*The Etheric Double**

The newly-discovered "*electro-structure*" now open³ to the

OLD ORDER

The Etheric Double

as the Pranic or vital body of ancient seers, of Indian and occult tradition.

Material Organism.

Chemical and physical exchanges of breathing and digestion.

NEW ORDER

The Etheric Double

investigation of Western physiologist is the etheric double of Theosophy or the vital body of Indian and occult tradition.

An electric organization lining up the material organism—"electro-structure".

An electro-exchange between the organism and its environment, besides the chemical and physical exchanges. This newly discovered function of breathing is called "electro-exchange".

A deeper understanding of the part played by oxygen (the most electro-negative of chemical elements) in the maintenance of life-processes. It is not merely chemical but also electrical.

A map of the world showing electric climates.

A deeper study of the electro-structure (etheric body) and of its relationship with the physical.

Collaboration of physiologists, psychologists and Theosophists in this research.

D. D. K.

SOCIOLOGY

BY KEWAL MOTWANI

INTRODUCTION

THEOSOPHY has been defined as Divine Wisdom, such as is possessed by the Gods. The word itself dates from the third century A.D. and was used by Ammonius Saccas and his disciples who founded the Eclectic Theosophical System. But the word seems to have disappeared from European thought till 1697 when a volume, entitled *Theosophical Transactions of the Philadelphian Society*, was published in London. We hear of the word again one hundred and fifty years later when two volumes, *Introduction to Theosophy* and *Theosophical Miscellanies*, were published in 1855 and 1856 in London. Dr. J. D. Buck, of Chicago, who possessed the first and second books and had seen the third, gives the contents of *Introduction*: "Science of the Mystery of Christ; that is, of Deity, Nature and Creature, embracing the Philosophy of all the Working Powers of Life, Magical and Spiritual, and forming a Practical Guide to the Sublimest Purity, Sanctity and Evangelical Perfection; also to the attainment of Divine Vision, and the Holy Angelic Arts, Potencies, and other Prerogatives of the Regeneration."¹ The latest appearance of the word dates at 1875 when Madame H. P. Blavatsky and Colonel H. S. Olcott founded the Theosophical Society in 1875 in New York.

Theosophy, as a systematised body of knowledge, claims a great ancestry. It has been known in India as *Brahma Vidya* and the extant literature of the Hindus, philosophical, religious, sociological and scientific, bears testimony to the ancient existence of Theosophy. But with the passage of time and due to various reasons, the fundamentals of theosophical thought fell into the background while its ethical and metaphysical portions were veiled in allegory and covered in symbol. It is only in recent times, when Theosophy has come to India and unveiled the theosophical nature

¹ Blavatsky, H. P., *Key to Theosophy*, p. 12. The reader will find the author's *Sociology: A Comparative Outline*, New Book Co., Bombay, (1947), helpful in the study of this chapter.

and content of Hinduism and of other religions, that there have come into being religious revivals, systematic researches in, and the scientific interpretation of, the truths of various religions and an appreciation of their hidden meanings. Such portions of this Divine Wisdom, as were available in the literature of the ancient Hindus, travelled to the West and have continued to affect western thought from the time of ancient Greeks to today.¹ But the Judaic-Hellenic traditions, supported by a highly-centralized Church, inhibited the progress of theosophical thought in the West and pushed it into the background. A few daring philosophers, alchemists and scientists came in contact with it and sought to adumbrate some of its doctrines openly, but they paid the price with their lives on the gallows, the rake and the stake. A few of them, such as Plato, Dante, Bacon, Sir Thomas More and others, sought to interpret human destiny in the light of this knowledge and to construct pictures of perfect social order, Utopias, but the subsequent discoveries of science, the rising tide of secularism, and the rapid social changes that convulsed the continent of Europe threw the remnants of this theosophical outlook into the background and even subjected it to ridicule. The climax was reached in the writings of two greatest thinkers and sociologists, who may be said to have been the co-founders of the Science of Sociology in the West, Auguste Comte and Herbert Spencer. These two intellectual giants essayed to themselves the same task as does Theosophy, the study of the world, man and society, and accomplished their task with an encyclopedic thoroughness. This steady disappearance of theosophical approach may be considered an unfortunate phase in the development of western thought, for the sociologists of the western world have laboured under the secular tradition handed down to them from the time of Comte and Herbert Spencer to today and with disastrous results. Sociology, like Theosophy, seeks to "see life full and see it whole." It aims "to grasp the vast heterogeneous aggregate" so that it can see it in its fullness. Sociology attempts to organize, interpret and utilise all available knowledge about the forces and factors that affect the human social drama. Thus, Comte surveyed the entire range of knowledge, available in his times, in the course of his six volumes. The first dealt with *mathematics*, since mathematics is the foundation of all natural

¹ A connected story of this impact, easily compilable from the Works of H. P. B., published by Rider and Co., would be highly revelatory and interesting. Pockok's *India in Greece*, published by the University of Edinburgh in 1858, also contains good material. Considerable research has been done in this field. See author's *Manu: A Study in Hindu Social Thought*, Appendix.

sciences and the mind's most mighty instrument in the study of natural phenomena. Then came *astronomy*, a science independent of all sciences but which could not be understood without mathematics. The third was *physics*, influenced by the celestial phenomena. Fourth came *chemistry*, related with the physical phenomena by weight, heat, etc. Fifth was *biology*, the science of life, moulded by the preceding sciences. Sixth and last was *sociology*, the science of social life, the most complicated of all. Comte covered the whole field of each of these sciences, as it had been developed in his times. Herbert Spencer who followed him developed his ideas in his ten volumes of *Synthetic Philosophy*, *First Principles of Sociology*, *First Principles of Ethics*, *First Principles of Biology* and *First Principles*. From the time of Comte and Spencer to today, Sociology has continued to reflect the secular and naturalistic tendencies permeating other sciences dealing with the world, man and society. Man, society and the universe were understood and interpreted in terms of exact, natural sciences; they were predictable phenomena that could be explained and manipulated, in terms of materialistic, mechanistic sciences governing the world of man's empirical world of experience.

It was distinctly with a view to counteract the disastrous consequences of the complete submergence of the theosophical point of view from the western world that Theosophy was revived through the efforts of one of the greatest spiritual and intellectual giants that the world has known, Madame H. P. Blavatsky, who came from a Russian noble family. H. P. B. covered the same ground as Comte and Spencer. She spoke of "keys" with the aid of which the mystery of life may be understood. These "keys", infinitely more comprehensive than the sciences covered by Comte and Spencer, may be grouped as under:

Astronomical, S. D. II, 25, note; I, 389; III, 198. Astrological. S.D., II, 345.

Geometrical, S. D. II, 494; III, 176; Numerical, S. D., II, 198; Symbolical, S. D. II, 561.

Physical, Biological, S.D. II, 25, note; III, 198.

Anthropological, S.D. L, 389; III, 198.

Psychological, S.D. II, 25, note; I, 389.

Ethical, *Key to Theosophy*.

Metaphysical, S.D. II, 25, note; II, 394. Mystical; S.D. I. 401.

¹ S.D. stands for *Secret Doctrine*. Her writings are devoted to the exposition of the contents of these keys and their interactions, the whole forming a picture of the cosmic movement which the human intelligence, as at present evolved, must find it hard to comprehend.

H. P. B. revived the knowledge of Theosophy in the world of western thought and thus laid the foundations of spiritual approach to man and the universe. The Theosophical Society, of which she was the Co-Founder with Colonel H. S. Olcott, an American by birth, has kept up this fight and sought to infuse western thought with the Theosophical point of view. Two cataclysmic wars in one generation with a third hovering in the horizon, have forced the West into a search of the lacuna in its schemes of values and thought, and I believe there will be an increasing receptivity towards Theosophy among the academic world and the general populace in the West in the near future. With this brief story of the relationship between Theosophy and Sociology, let us take up the various phases of the two subjects and see where they meet. A brief statement, more useful for its suggestiveness than detailed discussion, is all that can be attempted here.

BASIC FACTORS OF SOCIAL LIFE

Let us take a newly born babe and analyse the world in which he is born. (1) The first thing he meets with is this earth, the *terra firma*, which was and is a part of the vast universe that surrounds it. This earth is the geographic environment that receives the babe at the moment of birth, sustains him throughout his life and finally receives him when he is dead. (2) This environment is a dynamic thing. Its relationship with other beings like him as with the other worlds around is explainable in terms of mathematical laws. The mathematical nature of the universe is the second factor that enters into the world to which the babe has come. (3) He himself is the third factor. It is his physical organism with the aid of which he can make his existence known and with the aid of which he can participate in the social drama when he grows up. (4) But his body has a colour, it wears a "racial uniform", and this is going to determine the type of social contacts he will be able to make, the *locus standi* he will have in the social cosmos. Race, therefore, is the fourth factor. (5) His contacts with the world around will be on the mental plane as much as on the physical. He will need, from the moment of birth, an instrument to communicate his thoughts, express his emotions and guide his actions, and that is the mind. Mind takes birth at the moment the body makes its advent into the world. The newly born babe notices the relationship between his hunger, his cry, the touch of the mother's breast to his lips, the process of sucking and the satisfaction of his hunger. The

inner instrument which helps to co-ordinate all these activities into one meaningful movement is mind, and mind is the fifth social factor. (6-7) The remaining two factors, are the values of conduct and attitudes towards the unknown that are current in the group amidst which he is born. His parents, as members of a group, have imbibed certain codes of conduct that are essential for the welfare of the group as a whole; they have also evolved certain methods of worship and ritual in their attempts to come to terms with the unknown. Ethics and Religion are the sixth and seventh factors entering into the social pattern to which this babe is introduced at the time of his birth. These seven factors give us the seven "keys" of which H.P.B. speaks and of which Comte had a vague perception. These factors give us the seven basic social sciences, such as Geography, Mathematics, Biology, Ethnology, Psychology, Ethics-Aesthetics and Religion-Philosophy. Herbert Spencer covered the field more exhaustively than Comte, while H.P.B.'s treatment can be described as of cosmic dimensions! Interaction of these basic factors, represented by those seven social sciences, gives us the architectonic Sciences of Sociology and Theosophy. Thus, both Sociology and Theosophy cover the same field; they are both interested in the same problems, though the former is considerably limited in its scope, in its method of approach and in its conclusions than the latter, as we shall see presently.

SOCIAL PROCESS

Let us see how these seven basic facts of social life interact and affect man and his social behaviour and what Sociology and Theosophy have to say about each :

(1) *Environments*. Environments, through topography, location, climate and natural resources affect man and his social life intimately. Seas, rivers, mountains, deserts, plains, swamps, forests determine social and economic institutions of a group or a nation. Natural resources, such as coal, iron and oil, determine the fate of nations; foreign policies of nations are understandable in terms of the need of natural resources of weaker countries. Climate affects the physical constitution of man. Heat and cold affect human energy, capacity to work and procreate. There is an organic unity between the four factors, comprising a regional entity, such as the mineral, the plant, the animal and the human elements. All these are interrelated in one composite ecology, affecting each other for good or ill.

According to Theosophy, this logical, functional unity must be supplemented by the ethical and the spiritual. All these kingdoms of nature are inter-related because they form an integral, spiritual whole. Man's boast of conquest of nature is futile; if he does not recognise the urgency of co-operating with it, it conquers him all the time. Nations that have exploited nature indiscriminately or ignored its capacity to sustain life have been wiped out. A teaspoonful of soil contains millions of lives functioning in a dynamic equilibrium, and when man interferes with this balance on a continental scale, he invites disaster. Our earth is our "mother" in more senses than one. Man must treat it with reverence; all its processes and products are a part of one cosmic movement.

There is a cosmic aspect of the terrestrial environments. Our earth is a part of the vast cosmos, and the stars and planets continue to affect human destiny. The effects of sun and moon on our lives are obvious. Man owns affinity with the cosmos. All these environments evoke adjustment from man and therefore bring various aspects of his consciousness into play. As Annie Besant wrote many years ago, "Ultimately all the souls have to develop all their powers, but the order in which these powers are developed depends on the circumstances amid which the soul is placed. Climate, the fertility or sterility of nature, the life of the mountain or of the plain, of the inland forest or the ocean shore—these things and countless others will call into activity one set or another of the awakening mental energies. A life of extreme hardship, of the ceaseless struggle with nature, will develop very different powers from those evolved amid the luxuriant plenty of the tropical island; both sets are needed, for the soul is to conquer every region of nature. . . ."¹ The phenomenal world offers man a continuous challenge which, as an individual and as a member of a group, he must accept by evolving appropriate social mechanisms and institutions. These mechanisms and institutions must be true to the ethical and spiritual constitution and relationship of all forms and lives. As H.P.B. puts it: "Spirit is potential matter, and matter simply crystallised spirit, just as ice is solidified steam".² Life in the universe and man is the same.

(2) *Mathematics.* We live in a world that gives unquestionable evidences of mathematical regularities. Light, heat, sound, colour, time and space are all mathematical phenomena. Our planet moves in its

¹ Besant, Annie, *The Ancient Wisdom*, pp. 263-4, 1893.

² Blavatsky, H. P., *The Key to Theosophy*.

orbit with mathematical precision. The ebb and flow of tides, the solar and lunar eclipses, the waxing and waning of the moon and its relation to the growth of crops and the physical organism of man, all give evidence of mathematical calculations. The numbers of chromosomes in the botanical, zoological and human species seem carefully counted. Radiation of energy from the physical organism and the type and power of human thought reveal mathematical regularity. All art, painting, architecture and sculpture, music, dancing, poetry, which opens a window into the world of beauty, is based on rigorous mathematical calculations. Verily, "God geometrises", as Sir James Jeans wrote some years ago. Sociology puts this knowledge of mathematical concepts to use by studying its social implication in the fields of measuring human behaviour, vital statistics, social surveys, etc.

But according to Theosophy, mathematics has an ethical and spiritual significance. It aids us in understanding the spiritual nature of the universe and man's identity with it. Man himself is an orchestration, delicate and subtle, of powers and faculties that make him a part of the larger world of life. The macrocosm and microcosm are based on the same principles. All the universes, physical, vital, emotional, mental, moral and spiritual are based on laws that act with mathematical precision and produce the desired results. Magic is only a method of using this knowledge of the nature of man and the universe. When used for human welfare, it is occultism, *gupta vidya*, white magic; when used for evil purposes, for controlling human beings, for high-pressure salesmanship and propaganda, it is black magic. This knowledge can be applied for therapeutic purposes. Music, which is in harmony with the fine and subtle cadences of nature, can restore harmonies of body and soul. The sacrament is a science; the symbols of various religions represent mathematical concepts, such as circle, triangle, square, compasses, cross, etc., and they are invested with moral and spiritual significance.

(3) *Physical body.* The physical body of man has evolved out of simpler organisms by gradual change or evolution. As the organism adjusts itself to the demands of environments, it develops certain traits which are transmitted to the offspring through heredity. These traits enable the organism to struggle successfully for its existence. The fittest survive. This problem of heredity and mutations has engaged the attention of many biologists. In recent years, methods of atomic physicists have been applied by Mueller of Indiana University, to the genes and the source

of mutations traced to the natural radiations from the earth, pouring out radium and gamma rays.

According to Theosophy, man's body has not grown out of any simple organism on this earth. The age of the earth is not long enough to account for the size of the brain matter, the surface area of the cerebral hemispheres and the convolutions of the roof-brain. Man's body has shrunk from a huge, amorphous, sexless cloudy mass to its present diminutive, concrete size. Heredity cannot be explained in terms of the chemical nature of the chromosomes and genes. The unity of heredity from one generation to the next, the spontaneous development so that the designated organs appear in their proper places, the urge of the whole, and the accidental divergencies tell us that there is something more in evolution than a mere mechanical urge. It is the principle of life in every form that determines the pattern of heredity, and at the human level, the environmental, parental, social, and racial forces determine the set-up for the future development of the life's powers and potencies. This pattern receives the imprint of the Spirit in man and he descends into incarnation again. This pattern of the planes beyond the physical takes a definite shape, and the physical molecules arrange themselves from the moment of conception onwards. As H.P.B. wrote: "*There can be no objective form on Earth, nor in the Universe either, without its astral prototype being first formed in Space. From Phidias down to the humblest workman in the ceramic art, a sculptor has to create first of all a model in his mind, then sketch it in dimensional lines, and then only can he reproduce it in a three dimensional or objective figure. And if the human mind is a living demonstration of such successive stages in the process of Evolution, how can it be otherwise when NATURE'S MIND and creative powers are concerned?*"¹

This pattern becomes the vehicle of the future personality and its principles, mental, vital and physical. Thus, the psychic traits are not transmitted from the parents to the offspring; they are what the child brings with himself as his stock-in trade for the new incarnation, and the parents only provide the mechanism for their manifestation. As H. P. B. puts it: "*Complete the physical plasm, the 'Germinal Cell' of man with all its material potentialities, with the 'Spiritual Plasm', so to say, . . . and you have the secret, if you are spiritual enough to understand it*".²

¹ H. P. Blavatsky, *The Secret Doctrine*, Vol. II, p. 697, 3rd Ed. foot-note.

² *Ibid.*, Vol. I, p. 244.

And again: "In the case of *human* incarnations the law of Karma, racial or individual, overrides the subordinate tendencies of 'heredity', its servant".¹

With regard to the Darwinian theory of Natural Selection and Survival of the Fittest, Theosophy is equally emphatic. H. P. B. maintained that "Selection as a POWER—is in reality a pure myth: especially when it is resorted to as an explanation of the Origin of Species. It is merely a representative term expressive of the manner in which 'useful variations' are stereotyped when produced. Of itself 'it' can PRODUCE—NOTHING, and only operates on the rough material presented to 'it'. The real question at issue is: what CAUSE—combined with other secondary causes—produces the 'variations' in the organisms themselves?"² The truth about the causes of limitations and variations of species, she maintained, could be found in the esoteric teachings of India's ancient seers and sages. She says: "The day *may* come . . . when Natural Selection, as taught by Mr. Darwin and Mr. Herbert Spencer, will, in its ultimate modification, form only a *part* of our Eastern doctrine of Evolution, which will be Manu and Kapila *Esoterically explained*".³

The principle of human personality in which the mutations become embedded for use of the Spirit for incarnation after incarnation is the mutable quarternary of the physical, etheric, astral and mental bodies, the lower koshas of man, which enable him to enter into vital relationship with the cosmic forces playing on him from the various planes and planets of the universe, the sun being only one of them. As Mrs. Besant wrote over fifty years ago: "The sun is the great reservoir of the electrical, magnetic and vital forces of our system, and it pours out abundantly these streams of life-giving energy. These are taken in by the etheric doubles of vegetables, animals and men and are then transmuted into various life-energies needed by each entity".⁴ This statement anticipates by a half century Muller's investigations about the natural radiations of the earth as being partly responsible for biological mutations.

(4) *Race*. Race, according to Sociology, is not a biological concept, but a mathematical and cultural concept. The distinguishing marks between various racial groups present no clear lines of demarcation and are

¹ H. P. Blavatsky, *The Secret Doctrine*, Vol. II, p. 188.

² *Ibid.*, p. 684.

³ *Ibid.*, Vol. I, p. 657.

⁴ Besant, Annie, *The Ancient Wisdom*, p. 54, First Adyar Edition, 1939.

not so pronounced or constant as divide animals into species. Within any racial group, we may come across many variations closely resembling other groups. Individual differences in head-form, pigmentation, height, facial angle, body proportions, etc. are statistical and quantitative not qualitative. Superiority of some races over others is not demonstrated. Negroes of the northern states of the U.S.A. showed better results in intelligence than the Whites. This is a cultural fact, not biological or racial. The visible physical marks of the race are only convenient criteria for classification, since they assign individuals to categories and operate as points of interaction between the various groups. If given the same environments, the same facilities for social intercourse, the same social, legal, economic and educational status as a white child, there is no reason why a child, born in the jungles of Africa, may not come up to the level of the whites.

According to Theosophy, race is both a biological as well as a psychological concept. Theosophy accepts the present representatives of the dark, yellow and white races as distinct biological groups. The first two races are unknown as the configuration of the earth which they inhabited is beyond recall. The dark race, comprising the negroes of Africa, Australasia and South America, are remnants of the third or the Lemurian race. The yellow race, comprising the Red Indians of North America, the Turanians, the Chinese, the Japanese and the Semites, is the fourth, the Atlantean Race, which inhabited the lost continent of Atlantis. The Indo-European stock, popularly known as the Aryans, is the fifth race, comprising five sub-races: the Hindus, the Arabs and the Egyptians, the Iranians, the Celts, and the Teutons. Two more sub-races are yet to come: one of them is appearing in the western states of the U.S.A., Australia and New Zealand. Two more major races will appear. The configuration of the earth will change to afford new natural and climatic conditions suitable for the mental, moral and spiritual growth of those races.

These demarcations do not make for racial isolation; indeed race mixture is a constant phenomenon in human history. There are laws that determine a soul's race, religion and ray and these work with rhythmical regularity in his æonian career.

These demarcations of humanity are only for purposes of study and appreciation of the long travail along which man has travelled; they do not suggest social and cultural cleavages, much less sanctify the political, economic, legal and other disabilities imposed by the physically strong on

the weak. All mankind is made of the same raw material. Our joys and sorrows, our loves and hates, our hopes and fears are the same, irrespective of the colour of our skins. The remnants of earlier races call for determined effort on the part of the "advanced" groups to show them greater consideration and to offer them greater facilities for progress. The ideology of exploitation and dominance should be supplanted by that of promotion of the mental, moral and spiritual interests of the "humbler" and "the backward" strata of humanity and a vivid realization of the unity of mankind "irrespective of caste, creed and colour".

(5) *Mind*. The newly-born babe is just a bundle of cells; capable of reflex actions, such as crying, coughing, snoring, etc. This *original nature* also includes the structure of his *glands*. Deficiency or abundance of any of these will affect his growth and determine his role in the group. But it is only after entering into the human social drama that original nature will be transformed into *human nature*. Through constant interaction with the environments through the senses, with the aid of imitation and suggestion, this bundle of reflex actions and glands becomes a human being. This transformation takes place in the primary and the secondary *groups* in which he lives. But for this aid from his fellow-men, the child would remain a feral being, "a lost soul". The *process of assimilation* in the group assumes various forms. Conflict, competition, accommodation, co-operation, stratification and differentiation are some of them; they define the individual's place in the group and finally result in his complete assimilation in the group life. The group uses various mechanisms of *social control* to put a check on his vagrant tendencies. These mechanisms are numerous. Belief, custom, tradition, suggestion, public opinion, education, economic structure, law, religion, morals, rewards and punishment, flattery, propaganda, gossip, satire, calling names, threats, etc. are some of them.

Theosophy considers this whole process of the growth of human nature and personality in terms of the growth of the mind, which is only an instrument of something deeper and interior in man. That something is the self or Ātman, described as Ego or Monad, according to the level and degree of integration and awareness. The glands in the physical organism are only focal points of the subtler bodies surrounding man; they correspond with the chakras. Through these chakras man is able to put himself *en-rapport* with the universe of Life which is infinitely vaster than the merely social. Modern science recognises the existence of these bodies.

Through increasing self-awareness, watching the continuous flow of his thoughts and actions, man opens up a channel with his larger Self, which is the Silent Watcher in him, eternal, immutable, indescribable. The personality, "acquired with pain", has to be dissolved, the identity of the thinker and the thought has to be realized and transcended. This is the effortless effort of which the sacred books and great prophets have spoken; it is the Yoga of self-awareness, self-understanding. This is real meditation, which leads to stillness of the mind, its withdrawal from the all-absorbing maelstrom of life. Without this self-awareness, man must continue to be a plaything of the group and its institutions, reflecting its ceaseless contradictions and disintegrating tendencies. He must continue to be a bundle of contradictions, owing allegiance to numerous groups and organizations working at cross purposes, torn between their misleading ideologies and soul-destroying symbols and fictions. Man is infinitely more than the social product, aptly described as personality. *Persona* is a real mask; the truth of man's being lies hidden behind this mask.

(6) *Morals*. Sociology maintains that morals are the *mores* of the group. They are organised modes of conduct, conducive to the group welfare. Moral ideals are social ideals. Values ensure social solidarity and uniformity of purpose. The validity of these ideals and values is their usefulness to society. There are no absolute, intrinsic, super-social values to which a man may dedicate his whole being. All deviation from the social norm must be met with disapprobation, even death.

Theosophy considers that the whole cosmic movement is a manifestation of order and beauty and a man of heightened self-awareness will discover here the real world of values and beauty. This world of eternal values exists in its own right and man must dissolve the passions and propensities of his personality to be able to contact it. Both the individual and the group must come to terms with this world of values and beauty, or else they will continue to flounder in the morass of physical, sensuous futilities, unable to ascend from the animal to the human and the spiritual.

Also, the individual's conduct in the group must be judged not only in terms of the social norms, but also of his growth and responsiveness which vary according to the intensity of his awareness. All are not equally endowed with refinement of feeling and thought. A sunset is not the same for a poet and a peasant. Self-Sacrifice of the martyr has no meaning for the utilitarian and the pragmatist. Consequently, individual action must

not be judged from the standpoint of social utility only but also from the point of view of the individual, with all his biological, psychological and spiritual equipments.

Also, if conformity with the folkways and mores is the criterion of social solidarity, then the idea of progress can have no meaning. It is the few dissenting voices that have lifted humanity from its animal level, even though humanity has put them on the cross, given them the cup of hemlock, burnt them at the stake. These men, with their tongues of fire and souls aflame with the infinity of the Cosmos, are the mouthpieces of the values and ideals to which the ordinary mortals must be constantly recalled.

(7) *Religion.* Religion, according to Sociology, springs from fear. It is man's attempt to give a supernatural sanction to his conduct. The idea of God does not bring us any material profit, but it keeps all members of the group in their proper places and secures their obedience. Religion is, therefore, a powerful mechanism of social control, devised by the group to serve the double purpose of controlling human conduct as well as investing social habits and customs with an universal and absolute character. The highest form of religion is only an extension of family ideals to social life.

But Theosophy attributes the origin of religion to the irrepressible hunger of man for self-understanding and integration. Religion does not spring from fear but from man's eternal quest of his wholeness, holiness. To be sure, religion has to be lived and sought in society; only a neurotic person or a god can isolate himself completely from the social drama. Religion is, therefore, both an individual and social phenomenon. Man's self-integration takes place through his interaction with life around him and he becomes the master of his physical, vital, mental and cognitional worlds and finally converges into the world of happiness (*ānanda*), where the Becoming has come to an end. This is the world of Being (*Sat*). This divine discontent of man for putting an end to the contradictions of the life of personality, for transformation of the Becoming into Being is the source and end of religion. All great religions of the world have revolved round this central theme, differing only in their methods of expression suited to the times and the genius of the people. All the great Teachers and Prophets of the world form the Divine Directorate of the world, and not an unholy cabal of competitors for having the largest number of converts.

Summary. This is a brief outline of the various constituent elements that enter into the social process. They intermingle into the mighty stream of social life whose source recedes into the far past, and whose end reaches out into the illimitable future. While both Theosophy and Sociology seek to study all these basic factors, their approach to their content, function and ideal is different. Theosophy embraces a much vaster realm, its vision surveys depths and heights of both man and the universe. Sociology confines itself to what is seen and known by the senses. It is interested in what is, here and now. This basic difference between the two approaches becomes reflected in this understanding of the purpose and plan of social organization, social change and social progress, and to these we shall now turn our attention.

SOCIAL ORGANIZATION¹

The above-mentioned basic factors of life intertwine themselves in the life of the individual and the group and give birth to social organization. The social organization is a totality of various social institutions through which man attains fulfilment of various aspects of his nature and through which the group carries on the routine of its associated life. Thus, the needs of human nature and social institutions are the obverse and reverse of the same coin. The social institutions evolved by man are education, marriage-family, industries-arts, state, temple or the church. Each of these institutions satisfies some fundamental need of the individual and the group.

Education, for instance, facilitates man's assimilation into the group life. He does not have to repeat the whole of the experience gained by his group through centuries of effort. This experience is placed ready-made before him. From the social point of view, education, imparted with the aid of the primary groups, such as family, school and neighbourhood, helps to ensure continuity of the cultural heritage. Education is both a time-and energy-saving device, for both the individual and the group. Similarly, marriage provides contact with the opposite sex. Family, which comes into being after the birth of the child, becomes a social cosmos in miniature, with attendant duties and responsibilities of the parents to each other and to the new-comer. Economic institutions and industries represent man's efforts to make use of natural resources for his sustenance. The state represents the collective will of the group to live in safety and security,

¹ The Chart given at the end will be found useful in the study of this Chapter.

while the religious institutions aid man in coming to terms with himself, with the life around him and the cosmos.

Now, while both Sociology and Theosophy accept the existence of these major social institutions, their approach to their content and ideal is different. All institutions have not only a functional significance but also a spiritual one. Education, for instance, should take into account the spiritual nature of man and should orient itself to his awakening into his full stature. Marriage is something more than a mechanism for the satisfaction of biological urges; it is a comradeship of two souls who can learn to merge into each other so completely as to forget their isolated identities. Family has a spiritual value for its members, as they learn to discharge their obligations to all forms and modes of life, visible and invisible, past, present and future. It is the training ground where the arrogant, assertive "I" learns to be subordinate to the demands of the "We". Economic institutions and industries enable man to utilise nature's resources for replenishing his physical energies, but man must not seek to "control nature"; it will break him in the end. Any disturbance of the ecological balance is visited with disaster, as man is finding to his great cost. Nature pulsates with life and its products need to be used with a becoming reverence. The state is the formal, central organ of social control, but man must not be sacrificed to this Leviathan. Any cleavage between the state and the individual must result in the destruction of both. A religious institution must fulfil the task for which it is specifically designed. Instead of smothering the individual into an unending series of rituals and symbols, dogmas and doctrines, it should aid him in overcoming the contradictions of the world of empirical experience and Becoming and in entering the world of Being.

SOCIAL CHANGE

Social change is continuous and inevitable. There are various causes and kinds of social change. Changes in nature, in biological organism, in the mental endowments of individuals taking birth, changes due to contact with other groups and cultures through migration and conquest are continuously taking place, and they throw their impact on social life. Social changes can be slow or rapid, much depending upon the intensity of the causal factors. Rapid changes are revolutionary and lead to a break-down of the social structure. Change in one aspect of social life affects the whole social structure, for there is a close relationship between

the different segments of social life, "a strain towards consistency". What affects the part, affects the whole.

Theosophy maintains that behind all these types of changes, there is the cosmic urge which fulfils itself through movement, *samsara*. Nature is changing its visage constantly, because of the "push and pressure of the cosmos", which seeks to mould it in accordance with a plan. It is the same force that brings about biological mutations and mental differences. Change is not a mere re-arrangement of matter, it is entirely a new set-up in which the hidden powers and potencies of life manifest themselves afresh. Change can be brought under control, if we may speak in terms of control, only through co-operation with this mighty impulse of the universe. When man has understood the nature of this cosmic movement, he will have discovered the ultimate values and purpose of the cosmic drama, the pole star by means of which to guide his individual actions and social policies. Such a realization will minimise cultural lags and enable man to keep his social structure in a healthy, wholesome condition as he is able to maintain the health of his own body.

SOCIAL EQUILIBRIUM

Since social factors and institutions get out of pace with each other and cause dislocations, the group must make continuous attempts to bring about an intelligent adjustment of the causal factors of change. This means an overall planning of equilibrium of the different aspects of social life. The relationship of man with nature, his biological and mental endowments and his social, educational, political and economic institutions must be fitted into a workable harmony capable of dynamic movement.

But that is not enough, says Theosophy. Adjustment with nature might mean its ruthless exploitation to serve the physical, the animal in man. The purpose behind the planning of equilibrium of social purposes must be to serve the sovereign design of the Eternal, the aiding of the individual and the group in the upward ascent, in their supreme destiny of enlightenment, power and wisdom.

SOCIAL PROGRESS

Social progress is possible only on the human plane; there is no progress in the sub-human realms. There are various schools of thought.

Geographers place emphasis on abundance of natural resources, biologists and racialists on the physical prowess and supremacy of certain races, the intellectualists posit the development of human mind and accumulation of knowledge as valuable factors of social progress. The religionists consider man's submission to the will of God as the supreme factor of progress, while the institutionalists emphasise perfection of various institutions, such as education, state, arts, etc. as essential factors for social progress.

Theosophy maintains that while it is true that "progress" can be willed only on the human plane, social progress of the right kind demands a clear definition of the nature, meaning and purpose of man and the universe. Abundance of nature's endowments can be recklessly squandered, leading to a complete wreckage of civilization. A strong physique can be coarse and brutal. A refined, sensitive, supple body can alone be open to influences of the higher parts of man's being. Racial harmony is not secured by one "master race" dominating over the weaker ones. Greece in ancient, and Germany in modern, times tried the experiment, but with disastrous consequences. The main factor in social progress is the spirit in man and in the universe. It is this invisible power, more felt than seen, that continuously makes for righteousness. Progress should be conceived only in terms of minimization of separateness between life and matter, of increasing awareness of the individual, of orienting man's institutions to the "one increasing purpose" of aiding every life in its upward ascent to the world of Truth, Goodness and Beauty.

CONCLUSION

It will be clear to the reader by now that Sociology confines itself to the realm of empirical experience. It is chiefly concerned with man's life and behaviour as an individual and as a member of the group on the physical plane. It uses methods of investigation similar to those of the physical sciences; indeed, some sociologists speak of making Sociology an exact science, like Physics and Chemistry, even when the latest investigations in the constitution of matter have reduced it to evanescence, when the whole science of Biology is being challenged with the theses of vitalism and emergent evolution, discarding Darwinism as an outmoded technique of understanding the movements of Life, and when investigations in the fields of Para-Psychology, Gestalt Psychology and Psychism are beginning

to reveal new vistas of human consciousness and new sources that lie at the back of the reality of physical existence. Man cannot be reduced to a few formulas of physics and chemistry and human consciousness is not a summation of a few conditioned reflexes, complexes and endocrine secretions. The mystery of life is deep and Theosophy stands forth for occult and subjective methods of investigation. As H. P. B. remarks: "Science cannot, owing to the very nature of things, unveil the mystery of the Universe around us. Science can, it is true, collect, classify, and generalise upon phenomena; but the Occultist, arguing from admitted metaphysical data, declares that the daring explorer, who would probe the inmost secrets of Nature, must transcend the narrow limitations of sense, and transfer his consciousness into the region of Noumena and the sphere of Primal Causes. To effect this, he must develop faculties which, save in a few rare and exceptional cases, are absolutely dormant, in the constitution of the off-shoots of our present Fifth Root-Race . . . He can in no other conceivable manner collect the facts on which to base his speculations".¹

Theosophy does not present a rearrangement or rationalization of facts presented to man's physical plane existence; it guides the student's attention to a self-conscious attempt to probe into the world of Reality, which is whole, and in terms of which this smaller world of empirical experience may be understood and apotheosised. H. P. B., who stood for the spiritual and not the material origin of existence, saw "no possible conflict between the teachings of Occult and so-called exact Science, wherever the conclusions of the latter are grounded on a substratum of unassailable fact",² but "it is only when its more ardent exponents, over-stepping the limits of observed phenomena in order to penetrate into the arcana of Being, attempt to wrench the formation of Kosmos and its *Living FORCES* from Spirit and to attribute all to blind Matter that the occultists claim the right of disputing and calling in question their theories".³ She strongly affirmed that "man's *inner*, spiritual and psychic and even moral nature cannot be left to the tender mercies of an ingrained materialism; for not even the higher psychological philosophy of the West is able, in its persistent incompleteness and tendency towards a decided agnosticism, to do justice to the inner, specially to his higher

¹ S.D., I, 518.

² *Ibid.*, p. 517. •

³ *Ibid.*, p. 517-518.

capacities and perceptions and those states of consciousness, across the road to which such authorities as Mill draw a line, saying 'So far and no further shalt thou go' ".¹ Indeed, she even affirmed, and rightly so, that in order "to make Science an integral *whole*, necessitates, indeed, the study of spiritual and psychic as well as physical Nature ".² And she was sure of Science coming to terms with the methods of occultism in the near future. She said: "Science is slowly but surely approaching our domains of the Occult. It is forced by its own discoveries to adopt *volens nolens* our phraseology and symbols ".³

Sociology, as developed in the western world, is unquestionably materialistic, since all the basic sciences of which it is a synthesis, pursue empirical methods of investigation and are wholly devoted to the physical plane existence. But a change is coming over these basic sciences, as the reader will have seen in the contributions to this Symposium, and the day is not far off when a new Sociology which will see in Matter only Spirit in another form will arise. This change can be accelerated by the Theosophical Sociologist if he will heed what a Great Teacher once wrote: "Lead the life necessary for the acquisition of such knowledge and powers, and Wisdom will come to you naturally. Whenever you are able to attune your consciousness to any of the seven Chords of 'Universal Consciousness', those chords which run along the sounding board of Kosmos, vibrating from one Eternity to another; when you have studied thoroughly the 'Music of the Spheres' then only will you become quite free to share your knowledge with those with whom it is safe to do so ".⁴ He must attempt to learn the secrets of BECOMING and BEING, know first-hand "the hidden meaning of Apollo's heptachord, the lyre of the radiant God, in each of the seven strings of which dwelleth Spirit, Soul and Astral Body of the Kosmos, whose shell only has now fallen into the hands of modern Science". The foundations of such a reoriented Sociology will undoubtedly be: "The fundamental law, the central point from which all emerges, around and towards which all gravitates, . . . is the ONE Homogeneous Divine Substance-Principle. . . It is the omnipresent REALITY; impersonal, because it contains all and everything. . . The Universe is the periodical manifestation of this unknown Absolute Essence . . . called essence because from

¹ S.D., I, p. 628.

² *Ibid.*, p. 588.

³ *Ibid.*, p. 600.

⁴ *Ibid.*, p. 190.

esse, 'to be'. . . The universe, with everything in it, is called Maya because all is temporary therein, from the ephemeral life of a fire-fly to that of the sun—a will-o'-the-wisp compared with the eternal immutability of the One. Yet the Universe is real enough to the conscious beings in it, which are as unreal as it is itself".¹ And lo! Sociology will have thus become Theosophy.

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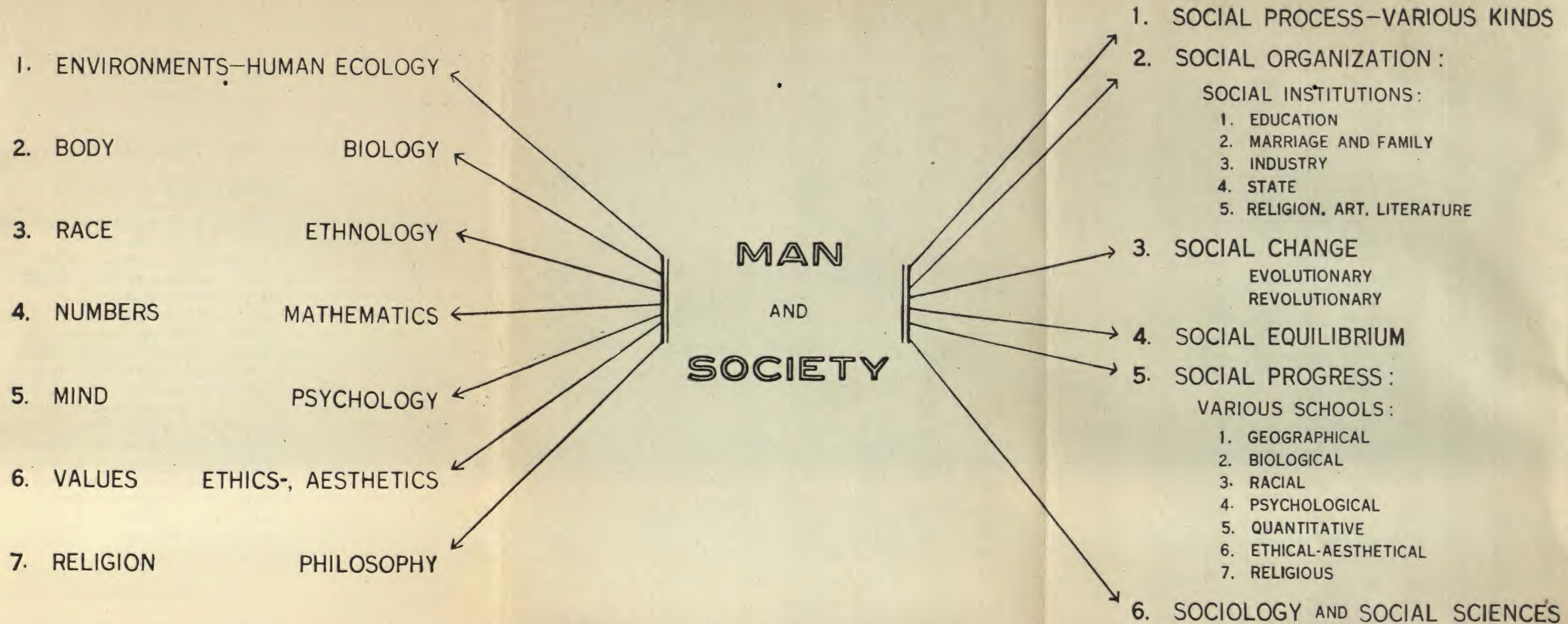
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The chart aims to illustrate the number and nature of forces, both inner and outer, that play upon man and society. His outer world consists of the mother earth, his physical body and the large collectivity, the racial group to which he belongs. His inner world consists of his mind, the values which guide his footsteps in his contact with the world and the Spirit which gives a coherence and meaning to all his activities. Mathematics is the point of junction between these two worlds of *prakriti* and *purusha*. This gives us seven keys or seven major social sciences, which, through constant interaction, help to form the totality of man's being and his social environment. Sociology is a synthesis of these major social sciences and the United States is, perhaps, the only country today in whose institutions of higher learning this subject is taught in considerable detail. The various courses of instruction in the manifold aspects of social life are offered under these head-

ings: Human Ecology; Social Biology; Cultural and Social Anthropology; Ethnology; Man in Society; Social Attitudes; Social Differentiation; Social Processes; Social Mobility; Social Control; Social Psychology; Propaganda; Public Opinion; Collective Behaviour; Educational Sociology; Sociology of Marriage; Sociology of Family; Divorce; Population Problems, both quantitative and qualitative; Race Problems; Sociology of Economic Relations; Political Sociology; Criminology; Penology; Sociology of Religion; Sociology of Arts; Sociological approach to Literature; Rural Sociology; Urban Sociology; Social Change; Sociology of Revolution; Social Welfare Work; Social Progress; Social Thought in Ancient Civilizations of Asia, in Europe and in America. The chapter aims to indicate briefly the working of these various aspects of human nature and his social products in mutual relationship from both the empirical and the Theosophical points of view.

The following is a list of the subjects included in the course of study for the degree of Bachelor of Science in Education. The subjects are listed in the order in which they are to be taken. The subjects are listed in the order in which they are to be taken. The subjects are listed in the order in which they are to be taken.

2. RELIGION

PHILOSOPHY

3. VALUES

ETHICS, AESTHETICS

4. MIND

PSYCHOLOGY

5. NUMBERS

MATHEMATICS

6. RACE

ETHNOLOGY

7. SOCIETY

BIOLOGY

8. ENVIRONMENTAL SCIENCE

WE AND OUR FOOD

BY D. D. KANGA

THE title of the monograph needs explanation. It draws pointed attention to the first half of the title, namely, "We". If a person is weak-willed, he will not be able to make use of his knowledge of the science of dietetics, however up-to-date he may be in the most recent findings of that science. This monograph and others on Economics, Politics, Atom Bomb, etc. show that knowledge *alone* is not enough to solve our problems. A spiritual background is necessary; along with science (knowledge, brains), we want spiritual strength and many spiritual qualities. What is wanted is a happy blend of science and theosophy, of knowledge on the one hand and ethics and spirituality on the other. Either one is not enough. If we want the bird of progress (civilization, health, prosperity) to fly evenly and smoothly, both wings must be equally strong.¹ What is wanted is a development from *all* sides, the development of the **WHOLE** man (heart and head and hands).

It should be the duty of every University to see that the curriculum provided by it for its alumni makes for the development of the *whole* man and does not make him lop-sided. Only then will the University be said to have fulfilled its *Dharma* as a University (universality, for *Wholeness is holiness, health, beauty, nobility, culture, refinement*).

Man ist was er esst, a man is what he eats, not only physically but also intellectually and spiritually. Our food is made up of the atoms of chemical elements in different numbers and different combinations. "All combinations of atoms may be classed under one or other of the three qualities of matter, as inert, mobile and rhythmic (tāmasic, rājasic, sāttvic). The application

¹ See diagram, p. liii, Vol. I.

of this in daily life, like the application of all true principles, increases the power of the Self over the Not-Self, of intelligence over non-intelligence. Thus, in the East, foodstuffs have been classified, so that a man may use such food as will build up his body *to the purposes for which he needs it*. [Italics ours]

1. The inert or tāmasic, will make the body resistant, enduring, ponderous, difficult to move—in excess, slothful.

2. The mobile, or stimulating, or rājasic, will make the body active, strong—in excess, restless, irritable.

3. The rhythmic or sātत्वic, will make the body balanced, quiet, sensitive, regular, harmonious".¹

This is a theosophical classification of foodstuffs based on a different principle. In appendix A are given examples of the above-mentioned three classes of foodstuffs.

Incompatible Foods

The subject of the combination of foods is one of the most important sections in the science of dietetics. Faulty combinations of foods at the same meal are responsible for digestive disorders and other disease conditions of the body. When the same foods are taken separately at different meals, they are harmless. At 40 every one should become his own doctor for, by that time if he is sufficiently alert and awake, he will have found out what foods and what combinations of foods agree with him and what do not. There are faulty combinations of foods, poor combinations of foods and good combinations of foods. Discrimination and discretion require to be exercised in the proper selection of foods and nowhere could one get a finer scope for their exercise and development than in this section of the subject. And it is well to remember that the same two qualifications of discrimination and discretion are the first steps on the Royal Road to Higher Life.

For examples of Incompatible Foods, please see Appendix B.

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Pituitary Body and
Pineal Gland

There are references to the pituitary body and the pineal gland in the monographs on "Evolutionary Biology: The Evolution of Form", Part II, "Physiology" and "Anthropology", Part III, and "Education", Part IV. There is a whole monograph on "Western Scientific Research and the Etheric Double",

¹ Annie Besant: *An Introduction to the Science of Peace*, pp. 69-70.

Part III. There are many references to these two bodies and the etheric double in theosophical literature; the important functions which they play in our bodies and are destined to play in the future is shown there.

"The etheric web is a protection provided by nature to prevent a premature opening up of communication between the physical and astral planes—a development which could lead to nothing but injury".¹

"The use of alcohol, tobacco or narcotic drugs causes injury to the etheric web, the pituitary body and the pineal gland. This is shown in the ossification of the web and the deadening of many of the vibrations. The effect of indulgence in these wrong habits is that some people fall into delirium-tremens, obsession or insanity, and in the case of other people there is "a kind of general deadening down of the man's qualities, resulting in gross materialism, brutality, and animalism, in the loss of all finer feelings and of the power to control themselves".²

If one wishes to make one's body or bodies (physical, etheric, astral and mental) healthy, resilient and *responsive* to the finest vibrations, then one should be very careful to see that one uses the purest and cleanest of foods and drinks and avoids alcohol, tobacco and other narcotic drugs. This purifies our vehicles.

The so-called "soothing of the nerves" in self-indulgence is due to the deadening of many of the vibrations. What we need is *the capacity to respond* instantly to all possible wave-lengths, and at the same time to have perfect control. This is possible only when we live a clean life, and cherish noble emotions and loving thoughts for the good of others.

When our body is paining, when our head, tooth or stomach is aching, when our breathing is hard and difficult, when our mind is wandering, then we become conscious of their existence. One of the signs of perfect health is that we become unconscious of the existence of our bodies. This happens when the bodies are in health and are completely under our control, and our desires, thoughts and actions are perfectly harmonized.³ This is the first step in the development of our higher spiritual faculties.

¹ *The Chakras*, by C. W. Leadbeater, pp. 69-70.

² *Ibid.*, p. 71.

³ See the monograph on "The Joy of Self-Unfoldment", Part IV.

Drinking, smoking, drugging also make one unconscious ; but this is going the wrong way. These are to be deprecated as they make us lose control over our bodies and prevent us from seeing things in their true perspective.

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Let us now have a heart-to-heart talk on the subject of food, a subject with which we are intimately connected even months before we are born, a subject with which we are associated every day of our lives, until the day comes for us to shuffle off this mortal coil. If we wish to give the fullest possible expression to our genius, if we wish to have our hidden powers unfolded fully without being hampered in any way, then we must realize that we should have a good physique. How could we expect a musical genius to express his undoubted skill and mastery over his instrument, for example, his violin or his veena, if he has to use one which is damaged ? How could we expect to carry on our work, whatever that be, most efficiently if we are handicapped by an aching, diseased body all our lives ?

If that is our aim, what should we do to bring about this happy state of affairs ?

In the first place we should remove from our minds certain wrong notions about this subject-matter. We should not live in a fool's paradise and suppose that we can eat any food we like or any we get and yet keep quite fit and strong. It may be that we may not perceive the ill effects of faulty dieting immediately and therefore we should not remain under the illusion that the laws of the science of dietetics do not exist, or if they exist, will not affect us, or that we are immune from their effects. We should not forget that we are all living in a realm of law. We cannot defy or deceive the laws of nature for a long time. We shall have to pay sooner or later the penalty for breaking the laws of health by any indiscretion or errors in eating and we should not be surprised if one fine morning we find we are in the grip of a serious malady.

So we should have respect for the laws of health and know what they are. One of these laws is that there is an intimate relationship between food and health, and food and disease. Food is one of the most important factors in the maintenance of good health and a high standard of efficiency. It plays

a more important part than climate. We should not forget that our stature, body weight, stamina, capacity for endurance and hard work, resisting power against infection and disease, physical efficiency and output of work, mental agility—emotional and spiritual health all these depend upon correct rational feeding.¹

Once again, if we are under the impression that by going to a health resort we can keep well and fit, even if we indulge in any foods we like and which our palate dictates, we are gravely mistaken. Nor should we think that if we are rolling in wealth we can keep strong and healthy by buying rich and costly foodstuffs and eating them without caring whether they are properly balanced or not. It is not always that riches and health go together. Were that the case, rich people would never get ill.

The sooner we remove these notions from our minds the better, for we should know that even if we are poor we can yet keep quite well and fit if we have an adequate knowledge of the latest researches in food and nutrition.

Now the latest investigations in the science of dietetics show that correct feeding keeps one in good health and produces a healthy race, while faulty feeding produces a race of weaklings—a race of sick men, women and children suffering from all sorts of maladies. We should also note that a correct, that is, a well-balanced diet is a very nutritious diet, but by no means a costly diet. What is wanted, therefore, is not so much money as *knowledge* to keep oneself strong, healthy and beautiful, for health and beauty are inseparable.

Here is therefore a message of hope and cheer for us all, for it will hearten us to know that for our health we are not altogether dependent on money, nor on climate, but on knowledge and sufficient *strength of will* to put that knowledge into practice. This knowledge it is the intention of this monograph to give but the strength of will cannot be developed by any one but ourselves.

* * * * *

We would naturally like to inquire as to why this question of food has assumed so much importance at the present day.

Food and Civilization How did our ancestors get on without this knowledge?

Did they not keep well and fit? What has happened between then and now which has brought this question so much into

¹ *Dietetics: Food and Race*, by D. D. Kanga.

prominence? The question has arisen and has become of great importance as a result of our civilization. We are now refining our foods and so disturbing their natural balance. We are also disturbing the balance by destroying the vitamins (or) and mineral salts contained in the foodstuffs either by faulty methods of cooking them or by storing or canning them. We thus make our foods ill-balanced. Again, we do not understand the intimate relationship between health and balanced dietary.¹

Wrong feeding and the use of ill-balanced foods lower our vitality and tone of health and thus make us more susceptible to the onslaughts of a large number of diseases. This is proved by the investigations of a large number of scientists. Lacs of rupees are spent every year over these researches in the different countries of the world—U.S.A., England, Germany, Japan, India, etc. It would be a pity if we did not avail ourselves of this new knowledge of nutrition which they have given us. Fortunately, all researches point to *one* conclusion, that **malnutrition**, that is, wrong feeding or consumption of an ill-balanced diet, **is the major cause of a very large number of diseases.**

Malnutrition is neither under-feeding nor starvation. It is quite understandable that a person might die of starvation even in the midst of plenty for the simple reason that a particular foodstuff which his body requires in order to live is absent from his dietary.

The influenza epidemic of 1918 which claimed from India² more victims in one year than what both the allies and the enemies together had lost during the four years of the first Great War (1914-1918), opened our eyes to the fact as to how low is the vitality of the Indian people. The high death-rate in India, the short span of life of the people and the high child mortality, compared to those of other countries point again to the same conclusion. The poverty of the people is of course responsible for this sad state of affairs, but ignorance and indifference are also great contributory factors. Again, corruption, exploitation, profiteering, hoarding and black-marketing as well

¹ See Appendix C, Tables I and II, for the rationale of a Balanced Dietary.

² What is written here for India is applicable to many countries in the world, similarly circumstanced.

as under-feeding, malnutrition and maldistribution are also other factors which are at present making the already difficult situation still more difficult. By a regularly planned campaign to combat this ignorance, indifference, corruption, anti-social practices and inefficient management we can do much to raise the vitality and tone of health of the people and thus increase their powers of resistance.

Professor Pottenkofer of Munich risked his life to prove this fact by drinking a broth containing cholera germs. He did not contract the disease, but remained unaffected because his tone of health was high. So, the most important point for us to remember is "how to maintain a high tone of health, how to increase the natural resistance against diseases".

It is common sense knowledge to understand the importance of the different processes, voluntary and involuntary, going on within our system for the maintenance of our normal health. They are, (1) mastication, (2) digestion, (3) assimilation, (4) elimination, and (5) rhythmic breathing. When any one or more of these processes is not functioning normally, then our health is impaired.

I take it for granted that we know that we need food for two purposes :

- (1) To maintain our body heat ;
- (2) To produce new cells which are needed, particularly for a growing child and to make up for the wear and tear of our bodies.

The following are the chief constituents of foodstuffs :

Chief Constituents of Food	(1) Proteins ; (2) Fats ; (3) Carbohydrates ; (4) Minerals ; (5) Roughage or coarse part of the food and (6) Vitamins.
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Of these, carbohydrates, oils and fats are heat-givers, proteins and minerals are body-building materials and vitamins are body builders.

Deficiency or excess of any one or more of these constituents of foodstuffs produces different kinds of diseases. This is now a scientifically established fact. Hence the rationale for the use of a balanced dietary. (See Appendix C, Tables I and II).

The Rationale of
a Balanced Dietary

Milk, vegetables, fruits and whole grains are nature's best store houses of vitamins and minerals. Does it not seem irrational to deprive in the first place the foodstuffs of their nutritious properties either by refining them, or by faulty methods of cooking them, or by storing or canning them and then to try to make up for their deficiency or absence by buying, under our physician's orders, costly artificial preparations from the chemist's shop?

Our Behaviour
is Irrational

It is good to remember that the best places to get vitamins and minerals from, are the field, the garden, the market place and the milkman, and not the chemist's shop or the drug store.

Does it not seem to be equally irrational to produce toxins in our system, first by faulty feeding and wrong ways of living and then to spend large sums of money on medicine and doctors' fees to remove those poisonous toxins which have accumulated in our system?

If we have imagination, we will understand that it is we who pay the lacs of rupees which are spent in advertisements, in papers and magazines all over the civilized world, of all sorts of medicines, for all sorts of ills. This is happening simply because we do not know the simple fact that **Food is Medicine**, and that "an ounce of prevention is better than a pound of cure".

Food is Medicine

It is, therefore, necessary that we should, in the first place, put our faith on the findings of science which have given us the "newer knowledge of nutrition" and not depend on our wrong habits and perverted palates alone as reliable guides in the choice of our food.

A little knowledge, a little self-control and a little education of our palate—is all that is needed to secure the best of health and efficiency. Let us see, how?

As we have already seen, the question of food has come into prominence as a result of our civilization.

Nature has provided us with a number of balanced foods; for example, whole grain, wheat and unpolished (hand-pounded) rice, potatoes, apples and tender cucumbers with their skins, are balanced foods. For one reason or another we do not eat them *whole* but disturb their natural balance and thus remove the most nutritious constituents from them in the process of refining them, e.g. in the case of wheat and rice, or by removing their skins in the case of potatoes, apples and cucumbers.

What are Nature's
Balanced Foods?

These balanced foods are by no means complete foods, but we make them more incomplete by refining them and thus weaken the tone of our health.

There is a sort of a balance between the basic (alkaline) and acidic constituents in the balanced foods described above ;
 How Food Becomes
 Ill-balanced we disturb that balance by removing the skins and along with them the *minerals* just under the skins, which are the basic portion of the foodstuffs and are there to neutralize the acidity due to starch in the interior part and thus make the foodstuffs more acidic.

By removing the skins and also by refining wheat and rice we are again removing from these foodstuffs the *coarser parts* such as bran, rice polishings and skins which act as *roughage* in food and play a most important part in eliminating the waste products of digestion.

We are also removing in this process of refining some important *proteins* and *vitamins*.

In order to further understand the significance of eating some of these naturally balanced foods in their entirety after thoroughly washing them and removing from them the coarsest parts, let us realize the desirability of having :

- (1) a balance between the acid and alkaline foods, and
- (2) a balance between low-bulk and high-bulk foods.

Let us take the second point first.

Low and High-Bulk Foods (Roughage).

If we are under the impression that the food which we eat must be 100% digestible we are then seriously mistaken.
 Roughage in Foods Therefore, there should always be in our diet some foods which would act as roughage and give exercise to the muscles of the intestines and cause the bowels to move and thus prevent constipation.

The following are low-bulk foods which provide very little roughage :

All breads, pastries, cakes, sweets, and cereals made from highly refined grains and sugar. Also all meats, fish, fowl, eggs, milk products, e.g. cheese and butter, and macaroni.

If we eat any of these foods in excess, our muscles of digestion will become flabby and we will suffer from constipation.

The high-bulk foods which provide much roughage and hence sweep away the wastes from the body are the following :

Vegetables, fruits and *whole* grains.

We should so combine our foods that we have 70% of high-bulk and 30% of low-bulk foods. (See Appendix C, Table I.)

Acid and Alkaline Foods

The blood of a normally healthy person is always alkaline. Therefore the best combination of foods is that which preserves the alkalinity of the blood and which shows a slightly acid reaction in the urine. Speaking generally, all vegetables and fruits, fresh milk and buttermilk are alkaline (base forming) foods, while all kinds of flesh foods (meat, fish, poultry), eggs, cheese, cereals of all kinds, such as, rice, wheat, bajri, jowar, pulses, dried beans, starches and sugars are acid-producing foods.

You will naturally ask, if all these are acid-producing foods, then what are we to eat? This does not mean that we should not eat foods which are acid-producing. It means this that our body functions best when the diet contains an excess of the alkaline over the acid foods. Alkaline foods are natural cleansing foods and are therefore to be taken in large amounts, for they help to eliminate the toxins from the whole system. This object is achieved when the proportion of vegetables and fruits to all other foodstuffs is at least 3 : 1 or better still 4 : 1.

For lists of acid and alkaline foods see appendix D.

Dr. Bircher-Benner's¹ Theory of Nutrition

Dr. Bircher-Benner's Theory of Nutrition

The important part played by sunlight on our health is brought into prominence by researches on vitamins, particularly Vitamin D. Vitamin D is an organic molecule charged with light. Codliver oil which is so rich in Vitamin D is sometimes called bottled sunshine.

Ergosterol which is present in a large number of foodstuffs, when charged with sunlight, is changed into Vitamin D. The difference between the biological effect of a foodstuff which is charged with light and an uncharged one is tremendous. (See Prof. Marcault's monograph, pp. 27-33, this Vol.)

¹ Dr. Bircher-Benner, M.D., who passed away only a few years back was a man of international reputation and an authority on the subject of Dietetics. He was widely known on the Continent and his works (written in German) have been translated into French, Italian, Russian, Danish, Swedish, Dutch, Polish, and two small books into English.)

What is
Energetics ?

Vitamin D plays an important part in the formation of bones and teeth and prevents rickets. It is the charge of light in ergosterol which prevents rickets and governs the growth of bone, etc. "Is it not to be expected", asks the learned doctor, "that the charging with light of all living food molecules should be significant for the biological effect of food?" This is the quintessence of Dr. Bircher-Benner's Theory of Nutrition.¹ He considers the question of food more from the energy side than from the material side. He says: "The problem of energy governs nutrition and assimilation". He lays great stress on the question and research on *energetics*.

The latest researches in the science of dietetics lay a great stress on the use of whole grains (brown bread, whole wheat chapatis, unpolished rice) and on the avoidance of white bread, white flour and all the preparations made from white flour.

Now white flour, ghee or butter and refined sugar are used for the preparation of sweets, cakes and pastry. They are great enemies to health and beauty. Let us understand, how? In the first place they are wanting in the protective vitamins and minerals which wise nature provides in vegetables, fruits and whole grains to neutralize the acidity of the starch in them. Secondly, these sweets and cakes are very concentrated foods. They provide more energy than the average person can use, with the result that this excess accumulates in our system as fat and makes us ugly and heavy and come in the way of making our bodies slim, beautiful, agile and resilient.

In the light of the knowledge that we have gained we must have noticed the very important part played by foods containing vitamins, minerals and roughage in the maintenance of good health.²

One thing that is most heartening in the discussion that we have had so far is the fact that we are again and again driven to the same conclusion from whatever point of view we look at the question, either from the point of view of acid and alkaline foods, or of low-bulk (little roughage) and high-bulk (much roughage) foods, or of minerals and vitamins, or of light accumulators, or of the right proportion³ of proteins, fats, and carbohydrates, or of animal and vegetable proteins and fats, or of calories⁴, that the foodstuffs

Foodstuffs in the
Order of Merit

¹ *Food Service for All and a New Sunlight Theory of Nutrition*, by M. Bircher-Benner.

² See Tables I and II, Appendix C.

³ See Table I, Appendix C.

⁴ See Appendix F, Diagrams of Ill-Balanced and Well-Balanced Diets.

arrange themselves in the following three classes in the order of merit (nutrition) :

Class I—

Fresh milk and its products, buttermilk, green leafy vegetables, raw uncooked vegetables, salads, fresh fruits, fruit juices, raw eggs, nuts, oils, honey.

Class II—

Whole grains (unpolished rice), whole meal bread, wheat chapatis, conservatively-cooked¹ vegetables, cooked milk and dairy products, cooked eggs.

Class III—

All kinds of meat dishes, refined cereal products, such as, white flour and white flour preparations, polished rice, sugar, jams, canned and preserved foods, etc.

What does this classification mean? It gives the judgment of modern science on the nutritional values of our daily foodstuffs. The modern science of dietetics recommends the greater and greater consumption of raw foods as far as possible and practicable, fruits, raw vegetables and fresh milk, raw eggs, etc. and the smaller and smaller consumption of flesh foods, refined, *devitalized* foods (rice, wheat and other cereals), canned foods, sugar, sweets, etc.

In practice, this means that we should have once daily at the principal meal, a dish of various raw vegetables accompanied by salad of some green leaves. We should use wholemeal bread or chapatis and unpolished rice, and rightly prepared, conservatively-cooked vegetables and potatoes. We should use tinned and preserved food rarely and only in the absence of fresh ones. We should see that dishes made with white flour are served with plenty of green vegetables. We should curtail our consumption of sugar, sweets, cakes and pastry.

It further means that we shall have to bring about a complete revolution in our eating habits and our ideas of what is an adequate diet. At present we are giving first place to foodstuffs given in class III; the sooner we give these foodstuffs the place they deserve and which modern science gives them, the better for our health.

Revolution in
Eating Habits

¹ "Conservatively-cooked" means cooked in such a way as to conserve all the nutritious properties.

Finally, if we wish to have a beautiful race of strong, healthy, hardy, creative men and women, we cannot build that race either on feasting (over-indulgence) or on fasting (under-eating). If we have to choose between the two, we would rather prefer the latter to the former, for the latter would help us more to advance intellectually and spiritually.

It would be better for us to remember that more diseases are caused by over-eating than by under-eating, that a small quantity of wholesome (balanced) diet, *properly masticated*, is far better for health than a large quantity of ill-balanced diet which is simply gulped down the throat without proper mastication. It is not how much we eat but how much of what we eat is assimilated by us, that is of importance. It is always better to rise from a meal with a feeling of a little hunger than a feeling of over-feeding. Over-eating even of balanced diets causes many diseases.

Over-eating, hasty eating, eating too frequently and drinking with meals, affect digestion, produce constipation and dyspepsia which are the root causes of all kinds of diseases.

"That those who now fast by compulsion of circumstance, may eat, we who feast by compulsion of habit, should fast. Because the world today is mad, some few 'fast unto death'. If only for their stomach's sakes, the many might well now adopt a 'fast unto life'." These words of Tandra Devi are worth pondering over.

We have all along stressed the importance of one factor only, namely, food, in the maintenance of health and efficiency; but there are other factors also which should not be neglected. Vigorous exercise in fresh air and sunlight, hygienic clothing, rhythmic breathing, a sufficient amount of rest and sleep, a clean and simple life and a spirit of optimism are also required along with the right kind and proportion of food, including pure water, if the production of a beautiful, strong, healthy and virile race is to be our goal.

There were two friends who were living together. They were highly educated and had a sound knowledge of both theoretical and practical dietetics. Balanced diets were always served on their table. Now one of the two throve on such a diet as he naturally should and the other was always

Feasting and
Fasting

Other Factors are
not to be Neglected

What is this
Perverved Palate ?

ailing. Why? Because the first *had sufficient strength of will* to make use of the balanced diet while the other, being weak-willed and consequently a slave to the vagaries of his perverted palate, partook, in spite of all his knowledge, of only those dishes which his palate dictated and not those which his judgment recommended.

We thus see that everything turns upon educating our perverted palate and bringing about a complete change in our habits and customs of nutrition. Is it possible? In our early age, we liked certain things very much and thought life would not be worth living if we did not get them. Now we do not care for them. Similarly, we can bring round our palate by speaking to it in the following terms:

<p>"You have ruled me so far and I have meekly followed you and The Cells of Tongue and Palate Challenged</p>	<p>here I am, a weakling, physically, mentally and spiritually. Now, from to-day, in the light of the new knowledge of nutrition I have gained, I am going to rule you and you will have to follow <i>my</i> orders, for I will not allow you to satisfy your merely habitual craving for food, irrespective of the real needs of the body". The moment we make this firm resolve and act up to it, we are free men or women. There will of course be a great resistance in the beginning from the cells of our tongue and palate but once they come to know that they have to deal with a person of strong will, they will yield and will be most pliable. New cells will gradually be formed which will relish the menus of the new type based on the "newer knowledge of nutrition". These new cells will have an aversion for refined, denatured foods, for hot, spicy, sour foods, for sugary, fatty, starchy foods, for flesh foods. On the other hand, they will have a craving for simple, wholesome, living, vitalizing foods, for raw vegetables and fruits, for naturally-balanced foods.</p>
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<p>We are, again, ignorant of the fact that there is a period of in- The Period of Incubation</p>	<p>cubation for every single malady that our flesh is heir to; that there is a cause for every disease. This incubation period may be short or long; it may be a few hours, days, weeks, months or years. This depends upon our own constitution to begin with and the extent of our faulty dieting, wrong habits, over-eating, indiscretion and want of control over our palate. But we should not forget that all these little errors help to accumulate the toxins of diseases in our system and keep us always below the normal standard of health, always ailing from one disease or another, always working under</p>
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a handicap and never at our best ; these end, again, in poor growth, poor mentality and leave a legacy of weaklings to the future generations.

Far better would it be if we made a serious error in our dieting, so that our diet was conspicuously absent from, or strongly deficient in, one or more of its nutritious constituents, with the result that the period of incubation of disease was considerably shortened and we were stricken down with a serious malady. Then our eyes would be opened to the importance of the subject of nutrition and we would not eat what we liked and what our perverted palate dictated but would be guided by the latest findings of science on the subject. " In eating let judgment dictate and not desire " (Dr. Hauser of Vienna.)

If we happen to belong to this class of persons, then we should remember that this weakness on our part does not affect us only but also our children and succeeding generations. And if we happen to be a responsible officer of state or a big man in our city or community, then it will affect a very large number of people. Let us see, how ? Let me explain : We know the maxim, " *Men's sana, incorpore sano* " (A healthy mind in a healthy body.) Body and mind are intimately connected and they react each upon the other. And so this weakness of ours will also make us mentally weak : our intellect will be clouded, we shall not be able to think clearly. We shall not have a clear vision of our work, duties and responsibilities. We shall not have a balanced view of life. We shall not be able to see things in their proper perspective. We shall not be able to assign right values to all things ; we shall not put first things first. Having failed to assign right values to our daily foodstuffs, or having failed, in spite of our knowledge, to act up to them *where our own personal welfare is concerned*, it will not be surprising if we fail in other spheres of life where our work lies and where we are responsible for the welfare of tens of thousands of other people. In other words, we shall not be in a position to solve the grave, complicated problems, such as starvation, disease, poverty, unemployment, deadlocks, wars, etc., facing our community, our country and the world.

Is not that our personal experience ? Is not that what we actually see occurring at the present day ? Not a single day passes without our reading in the papers about deadlocks—deadlocks everywhere, at home, between different communities, between different faiths, between the rulers and the ruled, between governments of different nations.

What are its
implications ?

Why Dead-
locks ?

There is no wonder therefore that one great man, an authority of international reputation on the science of Dietetics, Dr. Bircher-Benner, M.D., of Zurich, pointed out in his address "On the Prevention of Disease by Correct Feeding" to the Food Education Society, London, in 1933 on the occasion of the Twenty-First Annual Conference of Educational Associations that—"After a century of astounding progress in science and technology, in hygiene and medical surgery, the civilized world finds itself almost unexpectedly faced with threatened bankruptcy in every department of life".

"There is a definite relation between the condition of our digestive systems and social well- or ill-being. . . . He whose body is clogged by over-eating is also a clog on human society. . . whilst we learn to eat with moderation, by denying ourselves this and that, by gradual and steady abstinence, we liberate in ourselves forces that make for the welfare of our fellows. We become factors for social adjustment, instead of clogs in the human machine".¹

Here is food for thought for all of us. Let us brood over it, think over it calmly and dispassionately and we shall see the force of arguments given here.

We should therefore use the science of dietetics not only as an end in itself to keep us physically well and fit but also as a means of developing our powers of discretion, discrimination and self-control, thus awakening and expanding our spiritual consciousness as well.

We shall thus see that in this respect the science of dietetics is unique and should occupy a very high place among the sciences. Unlike others it demands from us an inner resolve to put its teachings into practice. We cannot expect to keep ourselves fit through our doctor, or our secretary or our agent. If we are engaged in a law-suit and cannot plead our own case, it does not matter; we can engage a lawyer to plead for us. If we want to build a house and do not know engineering, it does not matter; we can engage an engineer and get our work done by him. But when we want to build our own bodies and have no knowledge of the science of dietetics, we cannot simply engage a doctor or a dietician to get that work done for us. *We have to build our bodies ourselves* by making use, first, of our *will* and then, of our or other person's knowledge on matters of our daily diet. There is no other way. The utmost a monograph like this, or a professor of

¹ Tandra Devi: *Feasting and Fasting*.

dietetics, or our own doctor, can do for us is to point out the way. They will say; this way lies strength, health, beauty, clarity of mind, strong will; that way lies weakness, ill-health, ugliness, clouded mind, weak will. Let us make our own choice. The chooser is *we and we alone*. No one else can help us there.¹

In another respect also the science of dietetics is unique, inasmuch as it gives us an opportunity every day of our lives to make an inner resolve to put our knowledge and experience on matters of food into practice. Where else could we find a better field of exercise than this to make ourselves physically fit, intellectually alert, mentally clear, morally sound and spiritually awakened? It has thus the merit of bringing about an all-round development in us, help us to give the fullest possible expression to our genius and thus make us leaders to guide our people along right lines.

We can imagine the spirit of the age whispering in our ears thus:

"I am the spirit of the age, embodying the science of Dietetics.

Use me *wholly* (not only physically) and I shall make you refined and cultured and shall also usher in the New Order; for, it is only through you, the new types of men and women, that the establishment of the *new order* will become possible. **This is an age of wholeness**, which means holiness, and therefore the experiment is worth trying. The prize is great, the reward magnificent. Who will try? Only those who "mean business".

Listen to the Whis-
perings of the Spirit
of the Age.

¹ See pp. lii and liv, Vol. I, this Series.—ED.

APPENDIX A

1. A LIST OF SĀTTVIC¹ FOODSTUFFS*(delicious, bland, substantial and agreeable)*

Cow's Milk : butter, ghee, cream, cheese, curds prepared from cow's milk.

Cereals : ragi, maize, barley, wheat, unpolished rice, red rice, oat-meal, bread, sago, arrow-root.

Pulses of all kinds except the black gram : dried peas, pistachios.

Fruits : apples, bananas, mangoes, oranges, pears, pine-apples, guavas, wood-apples, papayas, pomegranates, berries of all kinds, sapotas, peaches, tomatoes, melons, dates, grapes, raisins, figs, lemons.

Vegetables : spinach, all leafy vegetables, cabbage, cauliflower, carrots, all kinds of gourds, white pumpkin, potatoes, sweet potato.

Sugar : candy, sugarcane juice, honey. Tender cocoanut water.

Nuts : almonds, groundnuts, cocoanut ; dried ginger ; myrobalan ; THEO, HAVIS ANNAM ;

CHERU (a mixture of boiled white rice, ghee, white sugar and milk).

2. A LIST OF RĪJASIC² FOODSTUFFS*(bitter, sour, saline, over-hot, pungent, dry and burning)*

Meat, fish, eggs.

Tea, coffee, cocoa, ovaltine.

Chillies, tamarind, chutney, pickles, asafoetida, mustard, spices.

Highly seasoned dishes ; foods that are dry and burning.

Oil, white sugar (commercial sugar).

Radish, brinjal, ladies' finger, cucumber, drumstick.

Articles of food producing wind, indigestion, sickness, grief, pain.

Fried things, pastry preparations, sesame seeds.

3. A LIST OF TĀMASIC³ FOODSTUFFS*(stale, putrid, corrupt, unclean)*

Beef, pork ;

All intoxicants, wine, liquors, all drugs, ganja, bhang, charas, tobacco ; all stimulants.

Onions, garlic.

Stale things, rotten things, unclean things.

Half-cooked and twice-cooked things.

¹ *The Bhagavad-Gita*, XVII, 8.

² *Ibid.*, 9.

³ *Ibid.*, 10.

APPENDIX B

EXAMPLES OF INCOMPATIBLE FOODS

1. *Starches and Acid Fruits* (Faulty combinations)

- (a) Pudding, pies and tarts with unripe or very acid fruits.
- (b) Cereals and acid fruits (a meal of rice followed by an acid fruit salad)

2. *Proteins and Starches* (Poor combinations)

- (a) Meat and potatoes.
- (b) Meat and bread (meat, fish, ham sandwiches).
- (c) Meat pies ; fish and potato chips.
- (d) Eggs on toast.

3. *Ill-balanced diets*

Excess of either proteins, fats or carbohydrates in combinations of two or more of them at the same meal, make the diet " ill-balanced ".

EXAMPLES :

Excess of Proteins :

- (a) Eggs and Beans. (b) Meat and Beans. (c) Meat and Fish.
- (d) Ham and Eggs.

Excess of Fats :

Olive oil, (salad oil), Butter and Nuts. Butter and Cream.

Excess of Carbohydrates :

- (a) Cereals (Starches) with large amounts of Sugar.
- (b) Potatoes and Rice.
- (c) Potatoes and Macaroni.

Some more Examples of faulty or poor Combinations :

- (a) Fish with Milk or Curds.
- (b) Meat with Milk or Curds.
- (c) Milk with Gooseberries or Cherries.
- (d) Milk with Milk Products.
- (e) Potato Salad and Vinegar.
- (f) Oat-meal and Grape Fruit.
- (g) Cream added to Pastry (Fat + Flour + Sugar).
- (h) Fried Foods and Pastry.
- (i) Rich Meat Dressings and Pastry.

- (j) Sugar, Jams or Marmalade with the already poor combination of a mixed Starch and Protein Meal.
- (k) Black Gram with Radish or Curds.
- (l) Jaggery (Gur) with Radish.

Some Examples of Good Combinations :

- (a) Vegetables combine beautifully with practically all foods except Sweet Fruits,
- (b) Acid Fruits combine well with all foods except Starches and Pulses.
- (c) Fats go well with practically all foods except Milk, Nuts and Flesh Foods.

APPENDIX C¹

The two tables I and II given below show the rationale for the use of a balanced dietary and also the importance of the presence of *minerals*, *roughage* and *vitamins* in the daily foodstuffs :

TABLE I

CONSTITUENTS OF FOODSTUFFS	CHIEF SOURCES	DEFICIENCY CAUSES THE FOLLOWING DISEASES	EXCESS CAUSES THE FOLLOWING DISEASES	DAILY HUMAN REQUIREMENT
Proteins				
1. Animal	1. Whole milk, Buttermilk, Skimmed milk.	1. Less resisting power against diseases.	Gout, Sciatica Rheumatism, Kidney troubles.	90 to 100 grms.
	2. Flesh, Meat, Eggs, Fish.	2. Lack of Vigour.		33.3 % (animal)
2. Vegetable	1. Cereal grains and Bread,	3. Affects Growth.		66.6 % (vegetable)
	2. Pulses, Peas and Beans.	4. Produces Anaemia.		
	3. Nuts and Seeds.			
	4. Vegetables and Fruits.			
Fats				
1. Animal	1. Butter and Ghee.	Affects eyes and mucous membrane.	Upsets digestion.	80 to 90 grms.
	2. Beef and Mutton Fats.			
	3. Fish Liver Oils.			50 % (animal)
2. Vegetable	1. Oil Seeds.	Oedema.	Causes obesity, constipation, flatulence and indigestion.	50 % (vegetable)
	2. Nuts.			
	3. Soya beans.			
	4. Coconuts.			

¹ The monograph on *Medicine* which follows may be read with advantage along with this monograph.—Ed.

CONSTITUENTS OF FOODSTUFFS	CHIEF SOURCES	DEFICIENCY CAUSES THE FOLLOWING DISEASES	EXCESS CAUSES THE FOLLOWING DISEASES	DAILY HUMAN REQUIREMENT
Carbohydrates	<ol style="list-style-type: none"> 1. Cereal grains and Bread. 2. Pulses, Grams, Peas, Beans. 3. Dried Fruits, Nuts and Seeds. 4. Starches and Sugars. 	Wasting	<ol style="list-style-type: none"> 1. Diarrhoea. 2. Diabetes. 3. Gas and irritating Acids. 4. Obesity. 5. Decay of the teeth. 	360 to 450 grms.
Minerals Calcium, Iron, Phosphorus, Iodine, etc.	<ol style="list-style-type: none"> 1. Milk. 2. Eggs. 3. Fruits. 4. Vegetables. 5. Cereal Grains (whole) 	Stunted Growth. Rickets. Bad Teeth. Anaemia. Wasting, etc. Goitre		
Roughage Or Coarse Part of the Food.	<ol style="list-style-type: none"> 1. Bran. 2. Polishings of Grains & Seeds. 3. Skin and Fibre of Fruits and Vegetables. 	Diabetes. Cancer. Chronic Constipation. Dyspepsia. Acidity. Appendicitis. Stomach Ulcer. etc.		

TABLE II

VITAMINS	CHIEF SOURCES	DEFICIENCY CAUSES THE FOLLOWING DISEASES	NATURE OF EFFECT	DAMAGED OR DESTROYED BY	DAILY HUMAN REQUIREMENT
A	1. Milk and Milk products. 2. Butter and Ghee. 3. Eggs. 4. Animal Fats. 5. Animal and Fish Liver Oils. 6. Green and Yellow Leafy Vegetables. (Spinach, carrot, lettuce, tomatoes, sprouted grains.) 7. Fruits. (Fat soluble)	Eye diseases. Night Blindness. Affects Growth. Inflammation of Nose, Throat, Lungs, Stomach and Bowels.	1. Growth-promoting, essential to Babies and young animals. 2. A Safeguard against infection from pathogenic Bacteria. 3. Maintenance of normal structure and function of Mucous Membrane.	Slowly destroyed by cooking.	0.875 mgm.
B¹	1. Unmilled Cereals (unpolished rice.) 2. Whole meal flour. 3. Milk. 4. Egg-yolk. 5. Nuts, and Germinating Seeds, 6. Tomatoes (most vegetables.) 7. Yeast. 8. Animal kidney, liver, brain, heart. 9. Pulses (Husks.)	Beri-beri. Nervous Breakdown.	1. Anti-neuritic, 2. Necessary for the normal functioning of the Brain and Nervous System. 3. Anti-beri-beri. 4. Body Builder and Repairer.	1. Baking powder (soda.) 2. Throwing away the washings and Cereal Polishings.	
B₂	Do. (Water soluble)	Pellagra. Skin Troubles. Raw tongue.	Growth-promoting.	Baking powder (soda.)	

VITAMINS	CHIEF SOURCES	DEFICIENCY CAUSES THE FOLLOWING DISEASES	NATURE OF EFFECT	DAMAGED OR DESTROYED BY	DAILY HUMAN REQUIREMENT
C	1. Most fresh Fruits and green leafy Vegetables. 2. Sour Lime. 3. Āmla (Indian Gooseberry.) 4. Sprouted Grains. 5. Paprika. 6. Fresh Milk. (Water soluble)	Scurvy. Soft Gums and Bleeding Teeth. Bad Infection. Swollen Joints.	1. Anti-scorbutic. 2. Maintenance of normal structure and function of Blood Capillaries. 3. Body Builder.	1. Baking powder (soda.) 2. Pasteurization of Milk. 3. Cooking, Storing, Tinning, Drying.	40 mgm. to 80 mgm.
D	1. Animal Milk and Milk Fats. 2. Animal Fats and Fish-liver Oils. 3. Egg-yolk. 4. Leafy Vegetables. 5. Ergosterol and Sunlight. (Fat soluble)	1. Rickets. 2. Soft Bone. 3. Weak Teeth. 4. Soft Nails.	1. Anti-rachitic. 2. Calcifying Vitamin. 3. Growth-promoting. 4. Maintenance of normal Structure of Bones and Teeth.		0.25 mgm.
E	1. Vegetable Oils. 2. Wheat Germ Oil. 3. Cereal Grains. 4. Egg-yolk. 5. Leafy Vegetables (lettuce.) (Fat soluble)	Retards Reproduction. Weak Offspring.	Antisterility in both sexes.	Rancidity. Baking powder.	

APPENDIX D

EXAMPLES OF ACID AND ALKALINE FOODS

1. *Acid Foods.* (Acid-producing foods).

Bajri, Bread, Chapati, Cheese¹, Chicken¹, Chocolate, Coffee, Eggs¹, Fish,¹ Flesh,¹ Honey, Jaggery, Jawar, Meat¹, Oatmeal, Rice, Sugar, Tea,¹ Wheat.

2. *Alkaline Foods.* (Acid-binding foods.)

Almonds², Apples, Bananas, Beans (dried)², Beans (dried Lima, Double Beans)², Beets², Cabbage, Carrot², Cauliflower, Celery, Currants (dried) Dates, Figs², Lemons, Lettuce, Milk (fresh), Buttermilk, Oranges, Peaches, Peas (dried), Potatoes, Prunes², Radishes, Raisins², Tomatoes, Turnips.

Note.—Milk is practically neutral, slightly alkaline when fresh, slightly acid when boiled or pasteurized.

¹ Strongly acid.² Strongly alkaline.

APPENDIX E

Balanced Diets which involve No Weighing General Observations

The principal foodstuffs used in our daily meals are (1) Milk, (2) Curds, (3) Buttermilk, (4) Rice, (5) Wheat, Atta (Jowar, Bajri), (6) Pulses (and dried Beans), (7) Meat, (8) Fish, (9) Eggs, (10) Ghee and Butter, (11) Oil (Vegetable), (12) Sugar, (13) Jaggery, (14) Vegetables, (15) Fruits, (16) Nuts, etc.

The examples given in the Table below, show the proportions in which these foodstuffs are to be taken to make a well-balanced dietary. HOUSEHOLD MEASURES are given so that anybody who wishes to prepare a well-balanced dietary can do so without the slightest difficulty by taking them as guides. If the different foodstuffs are taken in the proportions indicated there, then it will not be necessary to trouble about VITAMINS and MINERALS for they will take care of themselves. The diagrams following will further elucidate the subject.

TABLE III

Examples of Balanced Diets which involve No Weighing

The quantities written against each foodstuff indicate approximately the daily requirements of that stuff for a man at moderate muscular work. The quantities vary according to *age, work and climate*. The diets given here are for normally healthy persons.

FOOD STUFF	REQUIREMENTS PER HEAD PER DAY	
	NON-VEGETARIAN	VEGETARIAN
Milk ...	1 to 2 teacups (8-16 ozs.)	2 cups (16 ozs.)
Curds ..		1 cup (8 ozs.)
or		
Buttermilk ...		3 cups (24 ozs.)
Soya Beans (Twice a week) ...	$\frac{1}{2}$ cup (1.5 ozs.)	$\frac{1}{2}$ cup (3 ozs.)
Meat (chopped, packed) ...	$\frac{1}{2}$ cup (2 ozs.)	...
or		
Fish ...	4 ozs.	...
Eggs ...	1 to 2	...

FOOD STUFF	REQUIREMENTS PER HEAD PER DAY	
	NON-VEGETARIAN	VEGETARIAN
Rice (Unpolished) ...	$\frac{1}{2}$ to $\frac{3}{4}$ cup (4 to 6 ozs.).	$\frac{1}{2}$ to $\frac{3}{4}$ cup (4 to 6 ozs.)
Wheat Atta (Whole-meal) or Bajri or Jowar Atta (Flour) ...	1 cup (8 ozs.)	... 1 cup (8 ozs.)
or		
Brown Bread ...	1 to $1\frac{1}{2}$ loaves (8-12 ozs.)	... 1 to $1\frac{1}{2}$ loaves (8-12 ozs.)
Pulses or dry Beans ...	$\frac{1}{2}$ cup (2 $\frac{1}{2}$ ozs.)	... $\frac{1}{2}$ cup (2 $\frac{1}{2}$ ozs.)
Sugar ...	1 Tablespoon (level) 1 oz.	... 1 Tablespoon (level) 1 oz.
Jaggery ...	1 Dessertspoon (level) $\frac{3}{4}$ oz.	... 1 Dessertspoon (level) $\frac{3}{4}$ oz.
Ghee and Butter ...	2 Tablespoons (level) $1\frac{1}{4}$ ozs...	2 Tablespoons (level) $1\frac{1}{4}$ ozs.
Oil (vegetable) (exposed to sun's rays) ...	2 Tablespoons (level) $1\frac{1}{4}$ ozs...	2 Tablespoons (level) $1\frac{1}{4}$ ozs.
Vegetables (green leafy) (mixed) ...	4 ozs. One or two uncooked ...	4 ozs. One or two uncooked.
Vegetables (other kinds) ...	6 ozs. (cooked)	... 6 ozs. (cooked).
Fruits (fresh) ...	1 plantain or orange, or tomato or any seasonal fruit	1 plantain or orange or tomato or any seasonal fruit.
Dry Fruits or Nuts ...	A few pieces	... A few pieces.

1 Tea cup = 8 fluid ounces.

A dessertspoon is bigger than a teaspoon and smaller than a tablespoon.

2 dessertspoons = 1 tablespoon.

The following are some of the GREEN LEAFY VEGETABLES : Cabbage, Spinach (all varieties of), Lettuce, Turnip Tops, Brussels Sprouts, Amaranth (tender), Coriander, Drumstick, Celery, Parsley, etc.

The following are some of the ROOT VEGETABLES :

Potato, Beetroot, Yams, Carrots, Radishes, Onions, Leeks, Garlic, Celery, Parsnips, Turnips, etc.

OTHER VEGETABLES :

Tomatoes, Cauliflower, Cucumber, Brinjal, Gourd, Pumpkin, Bhendi (Ladies' Fingers). Knol-khol, etc.

A FEW EXAMPLES OF FRUITS:

Fresh Fruits :

1. Principal sweet fruits :

Banana, Figs, Dates, Raisins, avocado (pear variety), papaya, guava, etc.

2. Sub-acid Fruits :

Apples, Apricots, Grapes, Peaches, Plums, Cherries, Raspberries.

3. Acid Fruits.

Lemons, Limes, Oranges, Grapefruits, Pineapples, strawberries.

Dried Fruits :

4. Dates, Figs, Raisins, Prunes, etc.

5. Nuts, like Almonds, Walnuts, Cashew nuts, etc.

Note.—4 ozs. of dried fruits are about equal to 1 lb. of fresh fruit.

DESCRIPTION OF APPENDICES

Appendix A gives a list of Sāttvic, Rājasic and Tāmasic Foodstuffs.
(See p. 324.)

„ B gives examples of Incompatible foods (faulty and poor combinations) as well as examples of Good combinations.
(See p. 324.)

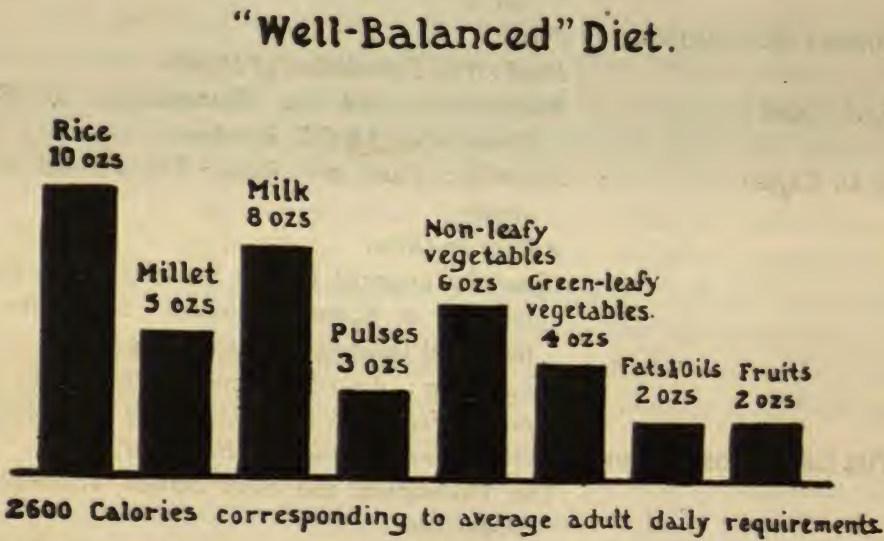
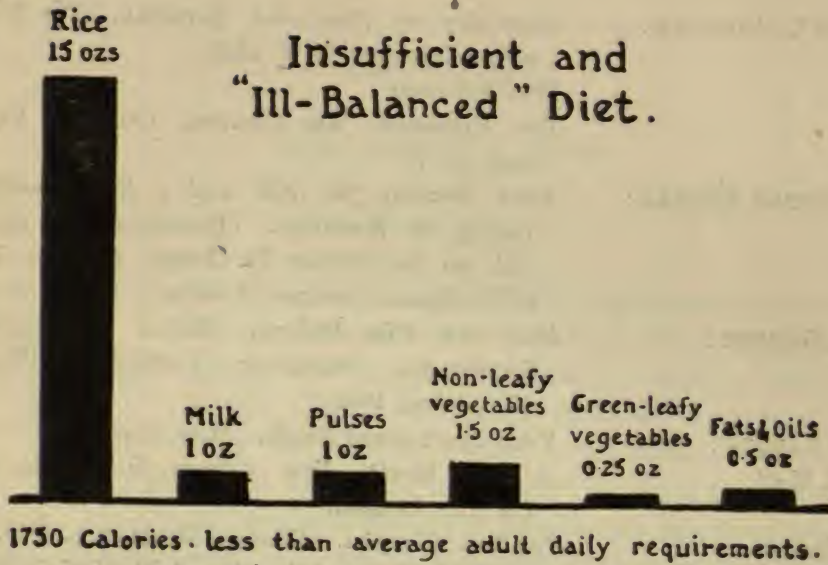
„ C (Tables I & II), gives the sources from which we get Proteins, Fats and Carbohydrates, as well as Minerals, Roughage and Vitamins, shows the diseases which are caused by their deficiency or excess, the nature of their functions in the system, daily human requirements, etc. (See p. 329.)

„ D gives examples of acid and alkaline Foods. (See p. 332.)

„ E gives examples of balanced dietaries which involve no weighing. (See pp. 329 and 334.)

„ F gives Diagrams of Ill-balanced and Well-balanced Diets.
(See pp. 329 and 334.)

APPENDIX F



The secret of health depends upon *the right proportion and the proper selection and combination* of foods. The two diagrams bring out most clearly the difference between an "ill-balanced" and a "well-balanced" diet.

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MEDICINE

By M. BEDDOW BAYLY

PART I

IT has become customary for historians of the progress of medical science to eulogise with indiscriminating enthusiasm the alleged triumphs of modern "laboratory" research, and to write of the science of medicine as though it were coincident with the last fifty years or so during which medical practice has proceeded under the dominance of the modern trilogy—Pasteur, Lister and the Germ Theory of disease—all preceding eras being rather contemptuously regarded as shrouded in the darkness of archaic ignorance, mediaeval mysticism and popular superstition.*

On the other hand, not a few eminent medical authorities, basing their opinions upon wide clinical experience, have within recent years reached and expressed conclusions which are in substance variations of the theme of the writer Wunderlock, who declared that "the history of medicine is the history of human error". In March 1937, Dr. Chalmers Watson remarked in an article which he contributed to the *Medical World*, that "the record of the results of curative treatment of the ordinary medical conditions, which fill our hospital beds to-day, is, to too large an extent, one of failure. It is probably true to say that in well over 90 per cent of the cases the results to-day from the patient's point of view do not differ materially from those achieved 40 years ago".

Many such opinions expressed—and let us add courageously and frankly expressed—in the leading medical journals might be quoted.¹

* In a Broadcast Talk to schools arranged by the British Broadcasting Corporation on October 26th, 1938, Professor Munro Fox made the following remarkable statement regarding the position of medical science at the time of the birth of Pasteur:

"He was born just a century ago, and at that time no one knew the cause of any disease. When, later on, it was found that diseases were due to microbes, or germs, or bacteria, this discovery completely changed the whole of medical science. Before that time doctors could do practically nothing to cure diseases".

¹ Reference numbers are to the *Addendum*, at the end of this monograph.

It is clear, at all events, that the exaggerated optimism often exhibited in defence of the modern medical outlook in regard to the basic causes of disease, to disease prevention and to the methods of experimental research connected therewith, is dictated by a conscious or subconscious fear lest the open acknowledgement of comparative failure should undermine public confidence in the priesthood of modern medicine, and reveal that many of the prevailing doctrines are but further examples to be added to that long series of errors which have to so large an extent composed the history of medicine. Moreover, the result of such a revelation would undoubtedly constitute an imminent menace to those vast commercial interests to which medical practice has, unfortunately, become far too subservient at the present day.⁷

This explanation certainly accounts, as none other, for the intense bitterness of the animosity which is invariably meted out to all critics, be they ever so eminent, of the methods and results of modern medical science.

Yet it would appear that to any one possessed of the Theosophical conception of the laws governing the development of human thought throughout the ages it should be possible to avoid both the hysterical adulation poured upon the often fancied triumphs as well as the pessimism induced by a scrutiny of the obvious failures, seeing in the passing changes a gradual orderly progression in conformity with, and inseparable from, the general progress of human thought and conduct: achievement, the fruitage of action in harmony with those laws which govern the spiritual welfare of mankind; defeat, the inevitable outcome of action in ignorance of, and even in deliberate disregard of, those laws.

Indeed, in the invariability of these sequential laws which the Theosophical student regards as operating in all departments of human activity, spiritual no less than physical, lies the greatest hope, nay the certainty, of future attainment. Noting the occasions of past failure and the fundamental errors which led to them we may turn from such unprofitable avenues, confident that repetition could have no other result than that already deplored; on the other hand, noting the successful issues and the lines of activity of which they were the outcome, we may be assured of the direction in which future achievement should be sought and in which alone it may be found,

Undermining
Confidence in the
Priesthood of
Modern Medicine

A balanced View
is Necessary

Hope in the
Invariability of the
sequential Laws

Conflict of newly-
arising Thought
with the Outworn
Concepts of the
Past

There are clear indications that in scientific medical circles both a wider and deeper understanding of the problems involved in the search for health and avoidance of disease is being eagerly sought, and already to some extent attained. But, just as in the sphere of politics and outer world-affairs the conflict of newly-arising thought and aspiration with the old and outworn concepts of the past led to the present world crisis in which the very structure of society and civilisation, as we now know it, may be shattered in preparation for the establishment of a more human order of things, so also in the world of medical thought, which shares in the general upheaval and re-shaping process, a state of deadlock between the opposing interests and ideals of the past and of the future appears to be approaching, the result of which bids fair to lead to the disintegration of the present foundation and structure of medicine. In fact, the reality of these coming changes has been for some time foreshadowed in the writings of some of the more intuitive and outspoken medical scientists, even among the ranks of those hitherto considered orthodox.⁹

Truth of the
Ancient Wisdom
Demonstrated

Needless to say, the student of Theosophy will not share their apprehension regarding the future of medicine, but will rather see in these approaching changes a fulfilment of those laws which his study has taught him to regard as invariably beneficent, a practical demonstration, through the cumulative evidence of history, of the truth of much of the Ancient Wisdom which hitherto he has perhaps only theoretically accepted as logically reasonable.

Modern Science is
Re-discovering
Knowledge

Even in the brief sketch of western medical history which is all it is possible to present here we shall find convincing evidence that modern science is re-discovering knowledge already possessed and taught by physicians and philosophers of ancient days, knowledge which was theirs because they too were inspired from the same fount of Wisdom—Theosophy.

Needs of the Racial
Types

The chief difference in the character of the knowledge acquired and expounded in the present cycle compared with that of more ancient times is one conditioned by the different qualities and developmental needs of the racial types concerned.

Western medicine takes its origin in Ancient Greece, among a fourth sub-race people, whose cultural development proceeded chiefly along lines

dictated by emotional stimulus and appeal, and who accepted readily on authority teachings which those whom their devotion led them to revere, gave out to them. In later days, before the fifth sub-race had become, sufficiently established to exert its dominant influence on current thought,

Blind Acceptance
leads to Credulity

this very capacity for accepting on authority, almost blindly, whilst it promoted the rapid dissemination of a larger amount of occult and other knowledge than would otherwise have been within the intellectual compass of the majority of the people, had, on the other hand, the disadvantage of encouraging credulity and hence of breeding superstition, a phase of development well illustrated in the religious beliefs and medical practices of the middle ages.

The Mechanism of
Life became the
Chief Subject of
Study

With the advent of the era during which the concrete mind, characteristic of the fifth sub-race, has become dominant there emerged a gradually increasing capacity for the intellectual comprehension of doctrines hitherto accepted on authority, and the insistent questions "Why?" and "How?" became the keynotes of scientific enquiry in all its various branches. Consequently the *mechanism* of life became the chief and most interesting subject of study, until eventually there seemed to be a danger that the "specialism" inevitably engendered by a close and detailed investigation of the *form* side would lead to an ignoring, and even to a repudiation of the integral relationship between the physical—physiological, chemical and electrical—mechanism of the body and those psychological and spiritual aspects of consciousness which taken together in their entirety constitute the Whole Man.

The Exaltation of
Utility over Moral
Values

This was, and still is to a certain extent, the special danger connected with the fifth sub-race development; but there are not wanting signs that with the dawn of the next sub-race, the sixth, of which the chief characteristics are the development of the synthesizing powers of the mind and the intuition, this materialistic phase, which resulted in the disastrous divorce between science and religion⁴ and led to the exaltation of utility over moral values and of expediency over righteousness, a phase

Beginning of a more
Synthetic View of
Life

which, typically exemplified in the practice of vivisection, has already passed its zenith and has begun to give place to a more synthetic view of life in which man himself as the Microcosm is looked upon as a whole, and hence his essential and integral relationship with that Whole, the

Macrocosm, of which he is a reflection, is more deeply and perfectly realized.

Thomas M. Ling, M.A., M.B., M.R.C.P., writing in the *Journal of State Medicine*, December 1936, expressed this change in the following words :

Since the war, a new viewpoint has arisen in medicine and actually a great metamorphosis is taking place, although for all those living and practising contemporaneously, its extent and implications are not always obvious. Gradually but inexorably medicine is becoming once more an art . . . we are now learning to realise the indissoluble character of psychic and somatic factors in the production of individual illness and that only by understanding and treating the "whole man" in relation to his upbringing, occupation and desires, is it possible to achieve real and lasting therapy.

PART II

This brief glimpse of medical history would be incomplete were reference not made to the fact that much of the knowledge and skill claimed as the achievement of modern science can be traced in part, at least, in the medical systems of ancient India, Egypt, Greece, and even China.

Moreover, those who may be inclined to be dazzled by Western methods and hence rather contemptuous of the very differently expressed ideas of the East in these matters must not lose sight of the fact that each system of thought has always been one best suited and adapted to the particular needs of the race of whose cultural life it formed part.

Nor can it be denied that, where faithfully observed, each medical system, as laid down by the law-giver of the time, has been equally effective in raising the standard of health, in reducing the ravages of disease and hence in promoting the happiness and general cultural development of the people. In fact, the discovery that even in remote ages man was in possession of knowledge and instruction far in advance of the unaided intellectual attainment of the time—often, indeed, approaching in accuracy and insight the achievements of modern science—constitutes in itself strong evidence of the claim of Theosophy that throughout its entire history mankind has progressed under the guidance and guardianship of the custodians of the Ancient Wisdom.

The Uniqueness
of each System of
Thought

The Guidance of the
Custodian of the
Ancient Wisdom

Hippocrates, "the father of modern medicine", with whom Western medical history, therefore, may be said to begin, laid down the fundamental law, "In order to cure the human body it is necessary to have a knowledge of the whole of things", a truly Theosophical concept which can be traced down the centuries; it was echoed by Paracelsus in the sixteenth century when he wrote: "True medicine only arises from a creative knowledge of the deepest powers of the whole universe; only he who grasps the innermost nature of man, can cure him in earnest"; and, as we shall see, it is finding increasing expression in medical writings at the present day.

In common with other medical philosophers of ancient Greece, Hippocrates, in attempting to explain the origin of disease, postulated three causative factors, two of which—termed the Crasis—consisted of the temperament and habits of life (including occupation and diet) and were therefore peculiar to the individual; whilst the third—termed the Katastasis—was an extra-corporeal factor consisting of the atmospheric status affecting the whole community at any given time.¹

It was from this third factor that he derived his theory of Miasmas in the explanation of epidemics, a theory which held the field for two thousand years; Sydenham, the "English Hippocrates" of the seventeenth century, modified it by postulating "that the seasonal periodicity of disease was dependent upon occult rather than upon perceptible changes in the atmosphere", to quote R. G. Latham (*The Works of Thomas Sydenham, M.D., 1848, p. 8*).

According to C. A. Gill, in his *Genesis of Epidemics and the Natural History of Disease* (1928), "This theory was accepted until the advent of Pasteur in the latter half of the nineteenth century, but even so late as 1894 the miasmatic theory still held the field, for in that year a distinguished English Epidemiologist, Dr. Charles Creighton, published his classical *History of Epidemics in Britain*, in which, as the result of laborious research and long reflection, he endeavoured to prove that all epidemics were due to the explosion of noxious vapours from the ground by earthquakes or by volcanic action, or to a rapid change in the level of the subsoil water".²

With the advent of Louis Pasteur, and his theory of the specific microbial cause of diseases, the whole outlook of medicine changed, and, although the germ-theory as propounded by him and his contemporary Robert Koch has never been substantiated in a single instance—and it is now recognized by all leading bacteriologists that microbes *when acting alone* are innocuous⁸—, it became dominated by the crudest of doctrines regarding the cause of disease conditions. It is only within quite recent years that medical thought has begun to realise their inadequacy and to stress once again the importance of the “soil” in relation to the “seed”; in other words, to return to the ancient conception of disease as arising primarily from those causes which comprised in the individual himself, in the Crasis, or temperament, and habits of life.⁹

The Germ-Theory
Temperament, the Cause and not the Microbes

Even the old miasmatic theory has regained some of its lost prestige, notably as an important factor in the cause and control of malaria; and in the *Medical World* of January 2nd, 1931, we may read that recently Van Leeuwen has pointed out the hypersensitiveness of a large percentage of asthmatics to colloidal substances of unknown origin present in the air which he terms “miasms”; for many years it had been recognized that sufferers from such allergic diseases were free from symptoms in some parts of the country, while worse in others, and this explanation is one which has now both ancient teaching and modern evidence to support it.

“Miasms” and Their Relation to Allergic Diseases

It will be realised by anyone acquainted with the history of medical thought that the main tendency since the days of the Greek philosophers has been towards a gradual materialisation of the earlier concepts as well as an over-emphasis upon the external factors in disease causation.

This reached its nadir, as already hinted, in the doctrines of the French chemist, Pasteur, whose dominating influence upon medical thought, to the extent of practically eclipsing the magnificent work of Professor Antoine Béchamp, to be described later, is susceptible of no ordinary explanation. Even Robert Koch, who actually formulated the postulates of the germ-theory, was constrained to declare that “Pasteur was not a physician and could not be expected to have a correct knowledge of pathology and of the symptoms of diseases. But his medical colleagues should have protected him against the errors

Pasteur's Influence

into which he had fallen". (Webb, G. B.: Robert Koch, *Ann. Med. Hist.*, 4, 514, Nov. 1932).

It would seem that the general change in the direction of medical thought was the almost inevitable accompaniment and outcome of the growth and eventual dominance of the lower mind over the hitherto emotional approach and the consequent temporary relegation of spiritual values to the background of human consciousness. Happily it marks a stage which is now rapidly passing, having played a useful part in making possible a greater accuracy of observation and clarity of focus in all that comes within the ambit of man's awakening powers of perception.

Now, as has been well said by Dr. Thomas M. Ling, the difference between the mental attitude of the East and that of the West towards the whole problem is that "in Oriental countries disease is regarded fundamentally as the removal of something spiritual from the body, while in the Occident the basic concept is that something—essentially tangible—is added to the body".*

It should not unduly surprise us, therefore, to find that even in regard to those meteorological factors which were held to be responsible in disease causation and especially in the production of epidemics, the more subtle influences of sun, moon and stars, acting through the medium of the personality and the physical body, as the Astrologers taught, should have become gradually relegated to the background and finally ridiculed; whilst eventually, as we have seen, the mistaken views of Pasteur, being in line with the generally materialising tendency of scientific thought, led to the entire abandonment of the last remaining shreds of the miasmatic theory. As Gill comments, "Medical opinion became seized with the view that the discovery of the specific cause of disease had *ipso facto* provided the key to the solution of the problem of epidemic causation; nevertheless, the miasmaticists did not abandon their position without a struggle, and in many lands notably in India, it was stoutly maintained, until quite recent times, that an air-borne miasm afforded a more satisfactory explanation of the genesis of epidemics than was possible in terms of the Germ Theory".

* *Medical World*, April 2nd, 1937, p. 177.

It was precisely the attempt to discover the reason why diseases, as is well known, change their characters from century to century and even from generation to generation; in other words, why, in the light of the germ theory,

Germ-Theory
Discredited

microbes periodically acquire abnormal powers of diffusion and toxicity, that led to the virtual discrediting of the theory among the well-informed and finally to a re-statement of the doctrines of meteorological influence by Mr. J. E. R. McDonagh in a brilliant synthesis which showed bacteria as evolutionary bodies changing their character and properties under influences emanating from the sun, stars and nebulae, influences which he claims every atom in the vast cosmos, including the atoms of our bodies and associated bacteria, must share.

In his work, *The Nature of Disease Journal*, Vol. II (1933), he writes: "Climate is the primary factor responsible for

Climate primarily
Responsible for sea-
sonal Epidemics

the epidemics being seasonal and it appears to have a selecting influence upon the micro-organism destined to become active. The main factor in climate is activity

which emanates from the sun, stars and nebulae" (p. 149.)

Mr. McDonagh regards the universe merely from the point of view

Change in any Part
affects the Whole

of chemical activity, but even so sees each particle so indissolubly linked with every other that every change in one part is propagated throughout the whole; and

this principle, manifested throughout the larger Cosmos, he also applies to the smaller cosmos, man's physical body: no change in any part which does not affect the whole; not many specific diseases, separately identifiable, distinct, but ONE disease with many varying manifestations depending upon the prevailing character of those subtle influences, which he ascribes to the sun, stars and nebulae upon a body, the blood and cells of which have already been poisoned by the effects of the numerous habits of life involved in our so-called civilization,—habits which so constantly contravene what he terms the fundamental ways of living and have a hereditary cumulative tendency towards the production of disease conditions.

Incidentally, it is of interest to notice that, in France, Doctors Foveau de Courmelles and J. Risler were the first to make a scientific study of meteorological influences in this connection. In a communication to the Société de Pathologie Comparée of Paris, in 1926, they pointed out the considerable importance which meteorological agents had on the

air we breathe, on the evolution of the exogenous and endogenous microbes, and on the reactions which light, heat, electricity, and the barometric and hygrometric conditions were imprinting upon our organisms, the whole depending upon the stars and their movements.

In America, the researches of the eminent physicist, Professor

Cosmic Rays

Millikan, of the Technical Institute of California, confirming the views of Nodon in France, demonstrated that we are continually receiving rays of intense penetrative power from all directions of the universe, which he calls "cosmic rays" and which possess among other many remarkable properties that of synthesizing chemical elements from their constituent ultimate elements (electrons).

McDonagh's concept of the material cosmos is one of a vast system of atoms and particles existing under laws known to govern the behaviour of colloid particles of chemical elements of wide dispersion,* the colloidal particles which constitute the protoplasmic life of the human blood and tissues sharing in and reflecting the kaleidoscopic changes occurring among the particles dispersed throughout the outer universe.

This suggestion from a modern scientific source of a fundamental unity underlying the atomic constitution (chemistry), and consequently the cell structure (histology) and function (physiology) of all living forms is one which is peculiarly in harmony with that part of Theosophical teaching which regards the matter existing throughout the universe as forming the physical plane garment of Planetary Intelligences, themselves centres within the all-embracing Logos, each of whom imparts his own characteristic qualities to that section of atoms which constitute his "body", and is thus able to affect the whole of that particular type of matter, widely dispersed through space though it may be, and entering into the composition of multitudinous forms throughout the cosmic system.

This primary and ever-changing pattern of basic atomic structure is the background against which is played our own part—by virtue of our adding those paramount causal factors, thought, emotion and conduct, for which we are directly responsible—in shaping the conditions of health or disease in which at any given time we find ourselves.

* Graham, the original investigator of colloidal states of matter, declared: "The colloidal is in fact the dynamic state of matter, crystalloid being the static condition: The colloidal possesses energia. It may be looked upon as the probable primary source of the force appearing in the phenomena of vitality."

It is of particular interest to note that this transcendental view is even now discernible, even though it be dimly and in part, in contemporary scientific speculations, and that this trend in medical thought has been brought about largely as the result of the failure of accepted theories, based upon crude materialistic hypotheses, to afford any satisfactory explanation of the genesis of epidemic diseases. As a leading article in the *Times* (London), August 13th, 1930, expressed it: "It is well known that diseases change their characters from century to century and even from generation to generation. . . . The nature of these and other variations has exercised the minds of physicians and bacteriologists during many years, but it cannot be said that any very clear views about them have been formulated".

Clifford A. Gill, in his text-book, *The Genesis of Epidemics*, (1928) confessed as much when he declared:

The hypotheses and speculations regarding the causes of epidemics are therefore lacking neither in number nor in variety, but it is clear that none of them can claim to provide an adequate explanation of the causation of epidemics . . . none can be described as the outcome of a systematic effort to assemble all the parts, to study their mutual relationship and to weave them into a consistent and intelligible scheme.

There is much to justify the suggestion that such a task could best be essayed by one conversant both with the factual evidence of modern science and the philosophic doctrines of the ancient Wisdom.

That scientific thought is increasingly lending support to the older teachings along the lines we have been discussing is clearly shown by a reference to C. A. Gill's book already quoted, for he declares that:

The unitary hypothesis is consistent with the general laws governing all natural phenomena, for whether it be in the infinitely little—in the structure of the atom—or in the infinitely great—in the ordering of the universe—Nature exhibits a remarkable unity of design, and it would be therefore as natural to anticipate a separate mechanism of epidemicity in each specific disease as to assume a separate act of creation in the case of each zoological species.

This demonstration of evolutionary design regulating the development and mutations of the minutest units of life, including the protoplasmic particles of our body-cells, as well as bacterial forms, would have undoubtedly been accepted far earlier in the history of medicine had it not been for the unfortunate usurpation by Pasteur's doctrines of the far more philosophically sound and scientifically

accurate teachings of his contemporary, Professor Antoine Béchamp, whose brilliant researches into the ultimate units of physiological activity in cell life, which he termed *Microzymas* (minute ferments), led him to conclusions that, had he but known it, were closely in harmony with the "Secret Doctrine".

Béchamp taught that the cell is a collection of little beings which have an independent life, build cells and, by the production of ferments, carry on the functions of metabolism and secretion. Further, he showed that they are physiologically indestructible and under conditions in which they are liberated from their proper environment may become destructive in character and, passing through intermediate forms, be converted into bacteria, the medium of their growth having "a great influence on the appearance of the various forms in their evolution", so that "there is an infinity of species which vary in their function".

This brief description should be compared with that of H. P. Blavatsky, in *The Secret Doctrine*,* concerning the "countless myriads of of lives that build up the material body and its cell". She declared :

Science, dimly perceiving the truth, may find bacteria and other infinitesimals in the human body, and see in them only occasional and abnormal visitors, to which diseases are attributed. Occultism—which discerns a Life in every atom and molecule, whether in a mineral or human body, in air, fire or water—affirms that our whole body is built of such Lives; the smallest bacterium under the microscope being to them in comparative size like an elephant to the tiniest infusoria".*

With prophetic insight H. P. Blavatsky went on to add :

So far as regards the purely animal and material portion of man, Science is on its way to discoveries that will go far towards corroborating this theory. Chemistry and Physiology are the two great magicians of the future, which are destined to open the eyes of mankind to great physical truths. With every day, the identity between animal and physical man, between the plant and man, and even between the reptile and its nest, the rock, and man—is more and more clearly shown . . . the same infinitesimal *invisible* Lives compose the atoms of the bodies of the mountain and the daisy, of man and the ant, of the elephant and of the tree which shelters it from the sun. Each particle—whether you call it organic or inorganic—is a Life. Every atom and molecule in the Universe is both *life-giving* and *death-giving* to such forms".*

* S.D., I, 281. (Adyar Edition, I, 304-5).

H. P. Blavatsky explained further that when through disease or death the force that constrains them into being the builders of the body is removed they then become the destroyers, for being deprived of oxygen they develop ferments which enable them to extract it from neighbouring tissues and then "the destruction so commenced steadily progresses".*

The Builders
become the
Destroyers

Recent corroborations of these ideas are plentiful." For instance, Professor F. G. Donnan in an address to the British Association in 1928 said :

If life has sprung from the non-living, its earliest forms must have been excessively minute. We must look for these forms, if anywhere, in those queer things that the bacteriologists call the filterable viruses. These are living bacteria so exceedingly small that they are invisible to the finest microscopes.

Invisible Living
Bacteria

He also referred to the work of the French investigator, d'Herelle, who had discovered that in bacterial cultures there develops frequently an extremely fine filterable virus which is destructive to the bacteria themselves, and hence termed by him "bacteriophage", and declared that "if it be proved beyond all doubt that they are living organisms, then the bacteriophages are comparable in size with the known colloid aggregate of non-living matter". This view is now generally accepted by scientists.

"Bacterio-
phage"

Later, speaking of Professor Hill's researches into the mechanism of the living cell, Professor Donnan said :

It appears from his work on nerve cells and on muscle that the organised structure of these cells is a chemico-dynamic structure which requires oxygen and therefore oxidation to preserve it. Life is a dynamic molecular organisation kept going and preserved by oxidation. Death is the natural irreversible breakdown of this structure.

If these statements be pieced together and their full significance realised, it will be seen that the teachings of *The Secret Doctrine*, previously quoted, receive striking confirmation at the hands of modern science.

Even of greater significance in this connection are the theories of William F. Koch, M.D., Ph.D., of Detroit, which he has propounded in his book *Natural Immunity* (1936); we shall have occasion to refer to them again later, but, put very briefly, their essential theme is that disease conditions, including the scourges

"Metabolites"

* S.D., I, 283. (Adyar Edition, I, 367).

tuberculosis, diabetes, malignant growth, etc., are brought about by an interference by certain basic toxins with the normal oxidation processes of cell-life which are the special work of constituents of the cell that he terms "metabolites" (cf. *Microzymas*).

The success of Dr. Koch's treatment, directed to the destruction of this underlying toxin, proves incidentally that disease is fundamentally ONE. The amazing restoration of previously diseased organs, shown by the experience of Dr. Koch to be the second outstanding phenomenon to follow the removal of the inhibiting toxin and consequent re-activation of the metabolites, is in fullest harmony with, and finds completion in, the existence of that "vital constructive energy" described in *The Secret Doctrine* by H. P. Blavatsky as the principle whose constraining influence causes the "countless myriads of lives" to build up the body-cells".

This section of medical history is one of intense interest to the student and would well repay the closest study. It has not been possible to do more here than indicate a few of the signposts from which the general trend of modern medical thought and its place in an orderly unfolding scheme of human development may be inferred.

Up to this point we have seen how this unitary hypothesis is being successfully applied to the problem of disease as it affects the Katastasis, the exterior factors in the Greek classification of disease causation. But we may find evidence quite as readily that the Crasis, the group of factors peculiar to the individual—namely, habits of life and temperament—is equally sharing in the new outlook to which the re-discovery of ancient truth is gradually but inevitably leading.

For instance, Mr. J. E. R. McDonagh, already quoted in regard to the external causes, has come to regard many grave diseases, such as diabetes and cancer, which are usually considered to be entirely unrelated, as taking their origin from similar fundamental causes; that is to say, from faulty nutrition and elimination, and their immediate result—intestinal toxæmia.

The elimination of this toxæmia, due to wrong habits of life, would, he maintains, solve the problems connected with the prevention of these scourges of mankind, problems to which, be it noted, long and intensive research by animal experimentation the world over has signally failed to provide the solution.

As an indication of the degree to which the conclusions of this modern bacteriologist bear out the teachings of the Greeks and of the Ancient Wisdom a paragraph may be quoted in which he declares, "The main preventive measure against infections from within is the adoption of the fundamental ways of living. These embrace wholesome food, hygienic clothing, a sufficiency of fresh air and an adequate elimination of waste products. The harm done by faulty living through lack of knowledge of what constitutes health has been accumulating for so many generations as to render the victims of disease today, born as such rather than made. This fact would prevent the adoption of the fundamental ways of living from bearing immediate fruit. As civilisation is constituted at present, man's health would be better if he became strictly vegetarian".

Fundamental
Ways of Living

The Products of
Flesh-Food Decom-
position

It is no less remarkable that independently of McDonagh in London, Dr. William F. Koch of Detroit, U.S.A. has, as the result of prolonged research (entirely unconnected with experiments upon animals) into the chemistry of the human body, reached almost identical conclusions as regards the one fundamental basis upon which all such chronic diseases as tuberculosis, diabetes and malignant disease rest—namely, a cumulative poisoning of every particle constituting the proto-plasmic cell-life of the body by the products of flesh-food decomposition and other impurities which have failed to be eliminated. Further, as the result of brilliant chemical reasoning he has devised and perfected a substance synthesized from purely chemical elements which, when introduced into the blood-stream of the body, sets up a chemical reaction resulting in the destruction of the basic poison, which has permeated the whole system and perverted the normal metabolism of cell-life.

A diet from which flesh, fish and fowl and their products have been eliminated, as well as abstinence from alcohol, smoking, and the drinking of tea and coffee, form a contributory part of the treatment essential to the unimpeded chemical activity which is desired. The amazing successes recorded in the cure of even advanced cases of malignant disease in all its varieties, have set the seal of practical achievement on a line of research, theoretical in its inception, but directed and conducted in accordance with the basic laws which govern the evolutionary unfolding of the heart as well as the mind of man.

Flesh, Alcohol,
Tobacco

In the whole history of medicine it would be difficult to find a more striking proof of the principle that truly profitable methods of research will always be ethically sound, and that really preventive medicine is always bound up with, and conducive to, the cultural progress of mankind, than is afforded by Dr. Koch's investigations into Natural Immunity, and his discovery of an antidote which, by attacking the toxin lying at the root of cell-disorder at its very point of contact within them, affects the release of that incalculable life-force which builds and repairs our bodies, and results eventually, therefore, in a return to normal function, form and appearance of the tissues and organs which were the seat of morbid and even malignant change.

Finally, we must consider briefly the modern indications of the re-establishment of the importance of the one remaining factor—the temperament—in disease causation.

Here we are faced with such a plethora of evidence regarding the influence of mind and emotions upon physiological functions of the body that the difficulty becomes one of selection. The rapid development of psychological medicine since the beginning of this century provides increasing witness to the recognition of the power of mind over matter both in the promotion of healing processes as well as in the production and perpetuation of ill-health.*

Professor Strong of Columbia University declared in his book *Why the Mind has a Body*:—"Recent psychologists tell us that all mental states are followed by bodily changes—that all consciousness tends to action", a statement in accord with that of Professor Ladd of Yale, who wrote: "Even the most purely vegetative of the bodily processes are dependent for their character upon antecedent states of mind" (*Physiological Psychology*, p. 75).

Professor Elmer Gates of the laboratory of Psychology and Psyurgy, Washington, who pursued experimental investigations with persons under varying states of emotion, came to the conclusion that "Every emotion of a false and disagreeable nature produces a poison in the blood and cell tissue" (*The Art of Mind Building*, p. 4).

* See p. 337, this Vol.—Ed.

As special instances of the application of these principles may be mentioned the following: In an article in the *Practitioner*, March 1930, Professor Leonard Williams, M.D.

A Fit of Anger
produces Gout

wrote: "Among the provoking causes of boils there is

one which I do not remember to have seen mentioned, which, nevertheless, has always appeared to me to be among the most important, namely, the mental conditions of anger, irritation or annoyance. To describe these psychic states, the French have an expression *se faire du mauvais sang* (to make to oneself some bad blood) which I am sure is literally true where boils are concerned. We know that emotions are capable of producing very dramatic physical effects: as witness the attack of acute big-toe gout produced by a fit of anger, and the effect of fright in suddenly letting loose the symptom-complex of Grave's disease, or the multiform spasms of chorea".

In the *Medical World*, March 5th, 1937 (p. 46), is reproduced from the *Münchener Medizinische Wochenschrift* an article by Charles Drucek in which we may read that "Depressing emotions, such as worry, fear, anger, may cause temporary constipation, and, if not immediately overcome and adjustment made, chronic trouble may ensue".

A profoundly suggestive article, under the title "Psychological Factors in Rheumatism", by J. L. Halliday, M.D.,

Physical Reactions
to Emotional States

D.P.H., appeared in the *British Medical Journal*, Jan. 30th, 1937, in which many such physical reactions

to emotional states are mentioned, and the symbolic significance of some of the symptoms of pain and limitation of movement are interpreted.

The foregoing are but a few instances culled at random, but they serve to illustrate the contention of Mr. McDonagh in his *Nature of Disease Journal* (1933) that "The realisation by modern psychologists that disease is just as much a mental as a physical defect is one of the few hopeful signs on the horizon of modern medicine". (p. 2).

So far has this truer conception of therapeutics gained ground of recent years that there has come into existence a new

"Holistic
Medicine"

term "Holistic Medicine" to describe, according to I. C. Young, M.C., M.D., M.S. (1934), "a theory and

practice of prevention and cure of disease, of which the cardinal principle is the recognition of the patient as a whole or *Individuum*".

It is of particular significance that within the past few years systematic research into the relationship between physical and emotional states has formed an important part of the work carried out by a group of medical psychologists at the Tavistock Clinic, London (The Institute of Medical Psychology, founded in 1920). In the annual *Report* of this body for the year ending 31st December, 1937, mention is made of investigations which have shown that not only in diseases such as peptic ulcer, ulcerative colitis and "heart-pain" but "even in disorders of sensitivity related to undoubted external irritants (e.g., Hay-fever), psychological factors play a part".¹³

Moreover, according to an article in the *Medical World*, August 18th, 1933, Alexander Cannon, M.D., Ph.D., D.P.M., has devised an instrument for actually measuring the effect of classified types of thought and emotion upon the respiratory and other chest movements. By means of this instrument, named at the suggestion of Sir James Baillie, Vice-Chancellor of Leeds University, the *Psychograph*, Cannon claims to have proved that "a definite 'pattern reaction' between thought processes and the act of respiration does exist", that "the rate of thought processes can definitely be demonstrated", and that by correcting the type of breathing it will be possible, after due research, to re-adjust abnormal thought processes. This last suggestion at once links his investigations with Indian systems of Yoga which embody the principle of the induction of states of consciousness by the control of the breath.* Though not unattended with danger, the prospect of this development of western therapeutics cannot but command our profound interest.

Not alone among psychologists, moreover, but also in the wider sphere of general medicine is that truer conception of therapeutics rapidly gaining ground which, in fairness, it must be mentioned here, has been the guiding principle of one school of therapeutics, the Homœopathic, since the days of their founder Hahnemann, over a century ago.

This form of treatment, based upon the principle of selecting a remedy corresponding in minutest detail with the complete picture of the

* The complementary principle of the effect of psychic states upon physical functions has recently been established scientifically in the West by the work of Dr. T. Brosse and others who demonstrated that the heart and pulse, etc. reacted immediately to emotional and mental stimuli induced under hypnosis. (T. Brosse: *Bulletin du Centre Homœopathique de France et de ses Filiales*, February, 1937, p. 187).

patient's individual temperament and habits, as well as with the immediate symptoms of his illness, is strictly in accord with the teaching of Hippocrates, and although, for long, scorned and derided by the orthodox allopathic school of medicine has of recent years gained more and more adherents among them.

The fact that it is a scientific and philosophic system founded upon the study of man himself and therefore free from the errors inseparable from the false analogies of animal experiments¹⁴ promises a brilliant and useful future for its practice.

One of the most notable contributions made in recent years by a member of the orthodox school of western medicine was that of H. P. Newsholme, M.A., M.D., F.R.C.P., B.Sc., D.P.H., Medical Officer of the City of Birmingham, in his work, *Health, Disease and Integration* (1928). Newsholme not only pursued a careful investigation into the psychological factors associated with, and to some extent, at any rate, causal to, inflammation of the brain and nervous system (encephalitis and poliomyelitis),

What is Needed for
the Health of the
Whole Personality?

tuberculosis, rheumatism, cancer, rabies, and certain other diseases, but went much further and showed that: "for health of the whole personality, and for the effective use of the will which is the means by which the

personality as a whole reaches self-expression, there are needed:

(a) Balance of action between the individual cells constituting the body.

(b) Balance between activity of body and activity of mind.

(c) Balance between activities of the emotional, the intellectual, and the spiritual sides of the mind".

Here we have expressed in modern terms a summing up of those factors in the maintenance of health and the production of disease which, in one form or another, have been taught throughout the ages, being implicit in that Ancient Wisdom of which Theosophy is the present-day expression and the keynote of the doctrines of the Greek medical philosophers which have reappeared from time to time in the intervening centuries among enlightened thinkers. Today, in spite of the temporary eclipse brought about by that materialistic phase of thought and research represented by the crude germ-theory and the vivisection laboratory, they are exercising an ever increasing influence upon the development of modern medical thought.¹⁵

A Summing Up in
Modern Terms

As to the future,* in which we may confidently expect to find an ever-widening meeting ground for Theosophical truths and modern Science, we cannot do better than to quote the words with which Dr. Newsholme concludes his book on *Health, Disease and Integration* :

Medicine, to be effective in its proper domain, must be intimately interwoven with the art and science of Religion. Medicine is only at the verge of its real sphere of activity, on which it will enter when it can systematically treat the individual as an intimate moulding, not merely of body and mind in their delicate adjustment to each other, but of body and mind as the vessel for the reception and expression of the spirit.

It is along these avenues of progress that, seems to the writer, the Theosophical conception of Man, not only in regard to his own constitution, but also in connection with his relationship to the One Life in all the kingdoms of nature, will surely make its most valuable contribution to medical thought and practice.¹²

Thus guided, the imminent danger that medical science, misled by a materialistic outlook, may succumb to the commercialism which has played an all too prominent part in its recent development¹³, may be avoided. Instead, illumined by the Wisdom and based, both as to methods of research and means of treatment, on truly human, because spiritual, values, Medicine will eventually take her rightful place as a Science of Health and a Healing Art.

* The Medical Section of the Theosophical Research Centre, London, has recently brought out, along the lines indicated in this monograph, a book entitled *Some Unrecognized Factors in Medicine* which, we hope, will prove very suggestive and thought-provoking to medical students.—Ep.

ADDENDUM

QUOTATIONS ILLUSTRATIVE OF STATEMENTS
IN THE TEXT

¹ J. E. R. McDonagh, F.R.C.S., in *The Nature of Disease*, Introduction to Part II, 1924: "During the past twenty years the author has devoted an ever increasing proportion of his labours to research in medicine and the allied sciences; looking back over this period the outstanding feature which strikes the impartial but interested observer is the relatively small advance made by medicine compared with other sciences".

Sir James Mackenzie, F.R.S., in the *British Medical Journal*, June 4th, 1921, page 757: "discoveries of the origins of common diseases were so few during the past fifty years that we had difficulty in recognizing any advance".

Major Greenwood, F.R.S., D.Sc., F.R.C.P., in *The Medical Dictator and Other Clinical Studies*, 1936: "So far as the practice of competent physicians is concerned, in a large majority of the illnesses described by Latham, the passage of ninety years has brought no fundamental change in methods of diagnosis or treatment".

Sir James Mackenzie, in *The Lancet*, November 3rd, 1923: "If the present state of our knowledge and practice regarding these diseases be compared with the state when I entered practice forty-five years ago, there is some difficulty in recognising where progress has been made. The so-called minor ailments . . . are just as common and as little understood now as then, and we are just as helpless in the face of grave acute disease".

² Lord Horder, K.C.V.P., F.R.C.P. in the Annual Oration to the Medical Society of London, reported in the *British Medical Journal*, May 20th, 1933 (page 860): "Formerly the chemist was the servant of the doctor; today he tends to become the doctor's master".

Drs. Bosanquet and Eyre, in *Serums, Vaccines and Toxins* (1916 Ed. Preface, p. viii; omitted from later editions): "A word of warning may perhaps not be out of place in regard to the intrusion of this commercial element into the fields of bacterial therapeutics".

Dr. George Wilson, in his Presidential Address to the State Section, British Medical Association, reported in *Journal*, August 5th, 1899 (p. 348): "The whole bacteriological practice is steeped in commercialism. Behring has patented his antitoxic serum on the Continent; Koch for years has made a princely royalty out of his tuberculin", which "has long since been labelled as worse than worthless".

Dr. William Park, of the Health Department of New York, was reported, by the *New Pioneer*, November 1938, to have said:

"We had one horse whom we called 'Old Faithful', who made splendid diphtheria antibodies—over \$ 175,000 worth of it".

Guy L. Kiefer, M.D., writing in the *Journal of the Michigan State Medical Society*, August 1928, made a frank plea for wholesale inoculation, stating that "the increase in physicians' income from diphtheria would be from one-quarter to three-quarters of a million dollars". "If all babies," he said, "were vaccinated against smallpox at birth, the doctors would increase their income by nearly 200,000 dollars". He added that the same conditions applied to other public health measures, and called for "persistent educational work by the physicians and the Michigan Department of Health".

At the Annual Conference of the British Medical Association at Manchester on July 23rd, 1929, during the discussion of a suggestion that medical practitioners should be supplied with Government lymph for smallpox vaccination, "Dr. Brackenbury recommended caution in this matter if only because there were members of the Association whose livelihood depended on the private manufacture of lymph, and in their interests the Association should hesitate before demanding that only one brand of vaccine lymph should be used in this country".

³ J. E. R. McDonagh, F.R.C.S., in *The Nature of Disease Journal*, Vol. I, 1932, page 1: "The whole foundation upon which modern medicine has been built is unsound, and many further additions to the edifice will bring about its downfall. The cause of the unsoundness has been the search for goals and the neglect of the means whereby they are to be reached".

⁴ J. E. R. McDonagh, F.R.C.S., opening paragraph of *The Nature of Disease Journal* (1933): "There are two great turning points in the history of medicine. The first is marked by the birth of the Art of Medicine as a whole; the second by the commencing disruption of this whole into disjointed specialisms. Medicine should always have remained a unit, with an eye directed towards every aspect of human affairs.

"The tendency to regard the mind as distinct from the body has led man to regard disease as a defect of the body instead of a defect of the whole organism. . . . It was this insistence on the physical aspect of disease that was one of the main factors in leading medicine into the paths of differentiation to which reference was made in the opening paragraph". (*Ibid.*, p. 2).

"The homoeopath lays stress upon the mentals, the patient's chief concern, and these the allopath invariably ignores, because he fails to understand their significance. Medicine will never render the public the service it should until every physician is a master of the whole subject". (*Ibid.*, p. 134).

Franz Alexander, M.D., of Chicago, in an article entitled *Functional Disturbances of Psychogenic Nature*, which appeared in the *Journal of the American Medical Association*, 100, 7, 469 (Feb. 18 1933), defined "the basis of modern medical thinking" as:

"The principle that the body and its functions can be fully reduced to physical and chemical processes."

He continued:

"Medicine owes to this principle its imposing development in the second half of the nineteenth century, and the maintaining of this principle gave medicine the rank of an exact science."

"Indeed, among the exact sciences medicine became more pope-like than the pope himself."

"It is well known in the history of medicine that the neglect of the psychic factors is new and typical of recent laboratory period of medicine, whereas the physician of the pre-scientific period paid more attention to the whole life-situation of his patient".

⁵ That this antagonism is still recognised as existing even by the foremost scientists of our time is indicated in the following quotation from the *Sir Halley Stewart Lecture* delivered by Professor J.B.S. Haldane in 1935: "There is perhaps a certain conflict between science and Christian ideals, and in some cases I think that it is a real conflict. Where that is so I can say without hesitation that I am in favour of science".

This statement might not unfairly be taken as representative of the attitude of the majority of medical scientists, particularly biologists and physiologists, at the present day.

⁶ J. E. R. McDonagh, in *The Nature of Disease Journal* (1933): "The Greeks were only academically interested in the separate existence of the psyche. In their normal life they believed in the oneness of the organism, hence their insistence on bodily as well as mental culture. . . . Moreover, it was on this belief in unity that Hippocrates built his system of medicine". (p. 2).

⁷ Dr. F. G. Crookshank in a review in the *Medical Press*, October 1928: "Charles Creighton, a student, thinker and morbid anatomist rather than a clinician . . . had set himself during the eighties to give us that *History of Epidemics in Britain*, which when first published, was slow to meet with recognition, but is now reckoned among the few great classics of British Medicine, and exerts every year an increasing influence upon thought and practice".

⁸ *Annual Report of the Medical Research Council, 1924-5*: "For a quarter of a century it has been known that some, perhaps many, of the microbes which are undeniably responsible in a causal sense for definite and grave diseases in man and other animals are in themselves completely non-virulent. Introduced into the body in the absence of other agents they are quite harmless . . . disease begins only if special circumstances are present, in which some change in the body, due to some other factor than the infecting parasite itself, has been brought about". (p. 15).

Chalmers Watson, M.D. writing in the *British Medical Journal*, November 3rd, 1928 (p. 817): "Bacteria played an important part in the causation of disease, but these were for the most part normally present in the digestive tract or other tissues, and were, during health, innocuous". (writer's italics).

⁹ Review of "*Recent Advances in Diseases of Children*" by Drs. Pearson and Wyllie, in *The Medical Echo*, October 1928 (p. 49): Our authors insist that alterations in the chemistry of the body are antecedent to infection . . . Deranged metabolism should be regarded as of greater importance in the causation of disease, and infection is to be looked upon as an incidental factor superimposed upon the metabolic disturbance".

¹⁰ Professor A. E. Boycott, F.R.S., B.Sc., F.R.C.P. in his presidential address to the section of Pathology of the Royal Society of Medicine, on the subject of *The Transition from Live to Dead: The Nature of Filterable Viruses*, October 16th, 1928: "If viruses do originate in tissue cells, what

are we to imagine they are? Béchamp's ghost would answer 'microzymas, as I told you seventy years ago'".

Professor E. A. Minchin, M.A., Hon. Ph.D., F.R.S., in an address to the Zoological Section of the British Association for the advancement of Science at Manchester in 1915:

"Many cytologists appear indeed to regard the cell, as they know it in the Metazoa and Metaphyta, as the beginning of all things, the primordial unit in the evolution of living beings. For my part I would as soon postulate the special creation of man as believe that the Metazoan cell, with its elaborate organisation and its extraordinarily perfected method of nuclear division by karyokinesis, represents the starting-point of the evolution of life".

"C. J. Patten, in his work, *The Memory Factor in Biology* (1926): "In endeavouring to trace to their ultimate analysis the marvels of protoplasmic structure and function, it becomes at once evident that unless one postulates the presence of a psychic side in all living things, any attempt to explain Memory phenomena on rational lines would signally break down. . . . Memory is not only the dynamo of the individual life of the organism, but it is also the perpetuating force which links together the psychic side of all living things into one harmonious whole". (page 9).

"The relationship between Memory and Habit is remarkably close; . . . indeed it is difficult to divorce the idea of the one from the other. (p. 69).

"Further . . . protoplasm . . . has the potentiality of remembering something about stimuli which have been sent into it, and of releasing such stimuli in various degrees without the aid of the original stimuli. This is virtually what is meant by Habit-formation. It becomes engraved on the ultimate particles of cell-protoplasm". (p. 73).

"W. A. Evans, M.D. formerly head of the Board of Health of Chicago stated in the *Spokesman Review*, Washington, U. S. A., February 18th, 1933: "There is one type of person on whom it is generally worthless to operate as a means of curing ulcer. He is about 25 years old, intelligent, sensitive and highly strung. . . . He is emotional and worries, usually about his business, but almost any other subject for worry will work. If a person of this kind has his ulcer cut away, he will have a new one, generally in about the same part of the digestive tract, within a few months after the operation. In the treatment of such cases it is more important to cut out the worry than it is to operate on the ulcer. Unless the subject can train himself in equanimity and can conquer his fears, he will merely trade new ulcers for old".

Dr. Charles S. Thompson, Medical Officer of Health, in a lecture on the causes and prevention of nervous breakdown, given at the Institute of Hygiene, Portland Place, London, on October 17th, 1928: "Anger and storms of passion can shake the nervous system to pieces. The coarser passions, such as anger, hatred, and jealousy, react adversely on the body far more commonly than the reactions of ambition, pride, and æsthetic and intellectual emotions.

"The surest foundation of mental health is faith in things unseen—the sense that God is in His Heaven and all is right with the world, no matter what the appearances may be. The feet must be planted on some sure rock of religion or philosophy.

"In alleviating nervous disorders we must take into account not only suggestive therapeutics, medical hypnotism, the psychoanalysis of orthodox psychology, but go farther and attempt to understand how and on what basis prayer and appeals to the highest spiritual instinct of mankind have curative value".

"The eighteenth issue of the *Individual Psychology Medical Pamphlets*, published by the C. W. Daniel Company, Ltd., London, contains among other interesting contributions a paper by Dr. T.A. Ross, entitled "The Psychological Approach", in the course of which the writer makes the following suggestive statement: "Illness, even if it has not originated psychologically, must soon be complicated by mental events . . . we shall not be able to ignore the mental aspect in any case of illness if we are to understand it other than superficially".

Dr. Braceland, in *Clinical Medicine*, April 1942, declared that most patients are sick, both physically and psychically. Some cases are designated as allergic, peptic ulcer, and a number of these definitely physical disorders are merely the results of psychic distress. We must bear in mind, therefore, that longstanding psychic disturbances may cause organic disease.

In the *Lancet*, August 8th, 1942 (p. 164) an editorial called attention to the fact that one of the causes of leucocytosis (increase in the phagocytes in the blood) was emotion, and that several scientific workers had demonstrated the relationship in mental disease, when this was associated with emotional disturbance. The behaviours most often accompanied by leucocytosis were panic reaction, depression with agitation, excitement with over-activity and anxiety, and excitement with over-activity and elation. Wittkower had showed that leucocytosis could be induced in hypnotized patients by suggesting various emotions.

Writing in the *Lancet*, January 1st, 1944 (p. 14), Spicer, Stewart and de R. Winser showed by statistics gathered at sixteen London hospitals during the heavy air-raids that the increase in perforated peptic ulcers bore a direct relationship to anxiety and fear.

"James Burnet, M.A., LL.B.(Lond.). M.D., F.R.C.P.E. in the *Medical World*, May 18, 1945;

"It is surely high time that medical men who are actually practising the healing art took some active steps to check the great onrush of laboratory and animal experiment which is, in so many respects, threatening the very foundations of practical medicine.

"It has to be borne in mind at the very outset that much of this experimental work is carried out by men and women who have no medical qualifications at all, and who, in many instances, are quite young and inexperienced. Often their one incentive is to find a thesis-subject to enable them to obtain the degree of Ph.D. Once that aim has been achieved they cease to be interested in the subject to which they have been devoting their time and energy.

"This is true, not only of this country, but of others as well. If all this experimental work be added to our knowledge no one would have any real ground for complaint; but, unfortunately, the results obtained, when applied in actual practice, are found to be not only sadly wanting but in certain cases fraught with danger. That some leaders of the profession are alive to this fact will readily be gathered from some of their recent utterances.

"It is time, surely, that a halt be made and a saner method of investigating disease and its means of cure be brought into being".

"Thomas M. Ling, M.A., M.B., M.R.C.P., in an article entitled "Emotional Factors in Disease" in the *Journal of State Medicine*, December, 1936 (reprinted in the *Medical World*, April 2nd, 1937, p. 177): "As mentioned earlier" a new orientation is required that will replace the localised conceptions of 19th century pathology in which disease was considered as being always localised in an organ or group of organs, by an outlook embracing a pathology of the whole body and mind, of the person, unique, changing but essentially striving to live. In striving to attain this breadth of clinical outlook, in which we are in reality taking on once more the totalitarian approach of the Greeks, we may be reminded and stimulated by Plato's description of medicine: 'And I said of Medicine, that this is an Art which considers the constitution of the patient, and has principles of action and reason in each case'".

"The writer of a review of a book entitled "The Discipline of Peace" by K. E. Barlow, M.R.C.S. (Faber and Faber London) sums up his central theme as follows (*Lancet*, October 19th, 1942):

"His 'Discipline of Peace' is the fitting of man's activities into the discipline of nature, to make an integrated whole in which man is a part of his own environment as well as that of the plants and animals on whose continued multiplication his existence depends. The author has a social philosophy to preach—a philosophy based admittedly on that of Eddington but developed along the lines of biological thought, recognising the need for the integration of man and nature. Without this integration Dr. Barlow sees only self-destruction for the human race.

* See quotation on page 360 (of text).

ASTROLOGY

BY CHARLES E. LUNTZ

POPULAR misconceptions of Astrology are not so very different from popular misconceptions of Theosophy. The student who, by his own painstaking research, has arrived at certain well-defined conclusions has a difficult task before him in presenting those conclusions acceptably to a hostile world. His audience divides itself into two camps one of which, on insufficient evidence, has already pre-judged the case adversely; the other of which, on insufficient evidence, has already pre-judged it favourably. The support of those who believed in astrology because they want to believe in it, knowing nothing about it, is probably more harmful to the cause of astrology than the opposition of those who condemn it, knowing nothing about it. The former class, by its credulity, disgusts the latter class whose ranks are more likely to contain those who have been trained to demand logical proofs of any given proposition. Unfortunately the "trained minds", while demanding such proofs, are so encased in prejudice that the demand is only a gesture. They do not expect the proofs to be produced—do not regard the subject as of serious import at all. They listen with ill-concealed impatience to the statement of a case which by its very nature does not lend itself to "short-cut" demonstration. And astrology suffers under the handicap that its proponents, competent though they be, are too often incapable of understanding that their own enthusiasms, experiences, appeals to authority, do not constitute evidence convincing to cold-minded thinkers. Astrology is presented with too much show of emotionalism, too much obvious contempt for the unbeliever, too little factual evidence, too little deference to the rules of logic. There is also too much reliance on authority. The undoubted fact that Camille Flammarion, Sir Isaac Newton *et al.*, proclaimed their belief in the truth of astrology, while perhaps slightly persuasive, is not more and not less convincing evidence that the planets affect our destinies, than the

publicly declared belief of Henry Ford in reincarnation assures our return physically to earth. We need a wholesome understanding of the reactions of others to the "proofs" which seem so palpable to us. A lawyer addressing a jury may have a very bad case and yet obtain a verdict by his adroit presentation of doubtful facts. A scientific explorer, attempting to obtain a "verdict" from Nature must have all his facts correct. He will secure no result if even one of his steps is faulty. The barrister may do so even if *all* of his are wrong, providing he can cloak them with an aura of apparent right.

Perhaps the astrologer, in his efforts to convince the world, has to too great an extent adopted the method of legal sophistry, not enough that of the strictly factual scientist. One reads through book after book purporting to offer the "case for astrology". What one finds is assertion, declamation, doubtful argument, wild statements unbuttressed by any shadow of truth. Even those of us who, for our own very good reasons, are profoundly convinced that there is a true science of astrology are often appalled by the feebleness of the case made by astrology's self-proclaimed experts. Many of us are believers in spite of, certainly not because of, the argument advanced for its truth.

Astrology, as an exact science, has also been damaged by the exaggerated claims made for it. This is particularly the case in the field of prediction. It may be that the Great Fire of London was astrologically predicted before it happened. The exact evidence that this was so appears somewhat shadowy, but we need not go back 300 years to demonstrate the worthlessness of many astrological predictions. It is suggested that the student go back only one year or two years, by reading carefully the various national predictions in any of the standard astrological almanacs. These "forecasts" have rendered astrologers and astrology the laughing-stock of the educated world. It was easy enough to predict that there would be "strikes and unemployment in America in 1936". That might be left standing in type as applicable to any year. It was not so easy to forecast the death of King George V, the abdication of Edward VIII and the reasons surrounding it. At least no astrologer did succeed in predicting these two events, though many laid claim to have done so—*after they had happened*. Where is the almanac bearing a date of issue *before* the events happened, which forecasts them? We know of none and, if any were produced, before we

accepted the forecasts as genuine, we should demand conclusive proof that they were actually published and available *before* the events they purported to predict had taken place and long enough before, that they might not have been deduced by ordinary processes of reasoning.

All this litter of rubbish must be swept away before we can hope that educated opinion will even examine the subject seriously. Astrology may well pray to be delivered from its friends. They have done it far more harm than its enemies. Those who believe in astrology, who love astrology, who are certain in their own minds that within its limits astrology has a great and beneficent function to fulfil, must sedulously oppose the false claims made for it.

It may be helpful if these unprovable, or at least unproved, claims are listed. But lest it be said that the writer of this monograph is making an assertion as bold as those he criticizes, they are unproved only so far as he is concerned. In twenty years of continuous searching for satisfactory evidence of their truth he has wholly failed to find it. Has, too, discovered no other astrologer who has found it or at least who has submitted acceptable proof that he has found it. If any reader has such proof it would be most welcome and the writer will cheerfully, gladly and publicly reverse his views when it is produced. But it must be conclusive, unambiguous, final. It must not consist of assertions, even though backed with affidavits. The human mind is too capable of self-deception—too prone to embroider a plain tale into a sensational adventure.

An example of what constitutes real proof may be given. A few years back a book was published in England attacking the *bona-fides* of H. P. Blavatsky in connection with her claims to have received letters from the Mahatmas. The accusation was made that she herself forged these letters—that the handwriting was her own, cleverly disguised.

In rebuttal, Mr. C. Jinarājadāsa reproduced in *The Theosophist* a photograph of a letter and the post-marked envelope in which it was enclosed, showing a date more than nine years after Madame Blavatsky's death. The letter, written by an inquirer in India to Dr. Besant, bore annotations in the handwriting of one of the Mahatmas—the very handwriting a person nine years dead was accused of forging.

Similarly, if one could produce an astrological forecast made by an astrologer who had been dead nine years before the event took place, and

if the prediction was clean-cut, not swathed in so much generality that it could be construed to mean almost anything, then the case for astrological prediction would be proved. The astrologer of course need not have died nine years nor at any other period before the forecast came true, providing there existed some definite means of establishing the date of the prediction as being far enough ahead of the event to preclude the possibility of guesswork. If any such evidence is in existence, at least in modern times, those who are familiar with it have been derelict in their duty to publicize it in the proper way. Half-a-dozen facts—three facts—conclusively provable in the manner indicated would be worth all the vociferous assertions which convince none but the unthinking.

Another instance of the nature of scientific proof may be given. One of the commonplaces of occultism is the existence of the faculty known as mental telepathy. Not more ridicule has been bestowed upon astrology than upon the "crazy" notion that people could transfer thought from one to another. Assertions there have been in plenty, "proofs" that were such only to those who produced them; experiences which left all but the experiencer cold. The scientific world stifled a yawn and looked the other way.

Yet when a professor of Duke University, Dr. Rhine, proceeded in the true scientific fashion to make factual tests, hundreds of them, thousands of them—and when he showed beyond doubt or peradventure by these tests that mental telepathy occurred again and again in subject after subject upon whom he experimented—at last the scientific world took notice, at last admitted into their exclusive diction the term ESP—Extra-Sensory Perception. But the tests had to be so clear, so simple, so utterly incapable of any explanation by laws of chance or coincidence that every other explanation was ruled out.

In the absence of such proof this writer declares that to the best of his knowledge and belief the following claims made by some for astrology are demonstrably false :

(a) The possibility of accurate prediction of detailed events by means of the natal, progressed or horary horoscope.

(b) The possibility of forecasting definitely the line or lines of occupation the individual will follow, the *exact* nature of his illnesses, the time of his death, and all similar facts.

Not only are such forecasts outside the range of possibility by means of the horoscope but it would be highly undesirable if they were within it. A terrible predestination would take the place of the free-will we at least may believe ourselves to have. Man would become a puppet activated by planetary and sidereal strings. Such a state of affairs would be incompatible with theosophical fundamentals, for man would not be "the arbiter of his own gloom or glory". That rôle would be reserved for the stars and the planets.

And even though the prime cause of the natal horoscope be laid at the door of acts done or undone in prior lives, the vicious circle would only be strengthened, not broken. For these acts must have been compulsive, by the nature of the horoscopes of those lives, and so on, back *ad infinitum*.

The science of astrology is strengthened, not weakened, by the discarding of such irrational and unprovable ideas. When we are rid of them we no longer waste our energies endeavouring to make astrology conform to an impossible standard of omniscience. We find that we have retained everything in astrology that is worth while and have dropped only that which never was worth keeping.

What then have we left? And how may we be sure that we have anything left and that this too is not imagination?

To answer the latter half of the foregoing question we must understand that astrology, at least in our human grasp of it, is not a science, exact in the sense that mathematics is an exact science. It may be likened to the more empirical sciences such as medicine. There are traditional well-established rules in medicine and there are similar traditional, well-established rules in astrology. Yet in a certain sense astrology is more of an exact science than medicine, for the orthodox rules of medicine are often challenged; even by medical men themselves, while the time-honoured landmarks of astrology remain today as 2000 years ago impervious to challenge. Some things, many things, in astrology are accepted by every astrologer (except possibly a few cranks who wish to be "different" for no good reason). No one, for instance, so far as is known, has ever disputed that Jupiter and Venus are inherently benefic, Saturn and Mars, the reverse; no one controverts the fact that a preponderance of planets and angles in Cardinal signs indicates leadership,

in Fixed signs tenacity, in Common signs a lack of both. These are astrological commonplaces—and there are hundreds of similar indicators in the horoscope, constituting the backbone of astrological knowledge apart from astrological speculation. Yet how have these things become known? We can only say—by observation. As theosophists we may, if we wish, postulate an early revelation by the divine leaders and teachers of primitive man. But we had better omit that hypothesis when we present our case to the world. As the virtues of certain herbs used in the East for healing may have been discovered by accident, long observation, repeated experiment, or may have been revealed aeons ago by the Divine Kings, so either explanation will fit the discovery of the nature of the planets, elements, constitutions and signs of the horoscope. Both explanations are probably true. The sacred science of astrology, we may well believe, was imparted to the early, more spiritual races; was partially or wholly lost, perhaps and rediscovered by observation. Certainly such knowledge as we have of the more recently discovered planets—Uranus, Neptune, Pluto—has come by observation of their effects in countless horoscopes. There is nothing inherently impossible in the idea that all our astrological knowledge was similarly obtained. Let us take, for instance, the well-known fact that in Western races a child born with the planet Mars on the Ascendant (unless in Capricorn) is likely, in a great preponderance of cases to have red hair. That fact can readily be established by observation and presumably that is the way in which it was first established. We must, however, beware of the fallacy, *post hoc ergo propter hoc*. Because the red hair is coincidental with the ascending position of Mars, are we justified in assuming that Mars in that position is the astrological cause of the red hair? "Yes, indeed!" answers "the run-of-the-mine" astrologer. "Mars on the Ascendant gives red hair, also the disposition that is popularly supposed to go with it".

Now this is interesting, if true. But the most cursory reasoning will show that it cannot possibly be true. Mars remains on the Ascendant approximately four minutes, yet the infant certainly possessed that red hair or the factors that would develop into the red hair, for several months before Mars took up that particular position in its natal horoscope. It did not have a natal horoscope, as a matter of fact, until the moment of birth. How then could a Martian position which had not yet occurred cause red hair already in existence before actual birth?

We need cite only this one example. It will serve for all of the hundreds of physical and mental traits for which the planetary positions are supposed to be responsible. How can they be responsible for them when they trace back to the genes and chromosomes embedded in the germ plasm? Or, if we take the Theosophical view as to the non-inherited traits, then to the incarnating ego?

Can it not be seen that the stars and planets can *cause* nothing—they can only *indicate* what is already there?

We may regard the heavens as a great timepiece, as indeed they are. When the clock upon our mantel strikes nine it will, if the clock is accurate, be nine o'clock. The striking of the clock does not *cause* it to be nine o'clock however. It *indicates* it, merely.

Similarly each of us is born exactly as his hour strikes in the great clock of the heavens. He is what he is, not because the planetary and sign positions make him so. He is born *when* he is because at that exact moment the heavens indicate him precisely as he is—his heredity, type of environment, innate talents, disposition, character—that facet of him which his ego has chosen to manifest in the current incarnation. Surely it is unworthy of the Supreme Intelligence to credit it with capriciously decreeing happiness for A because he was born at 8.30 A.M. and misery for B because he first drew breath at 8.30 P.M.

Perhaps a still simpler analogy would be to consider the heavens as a huge vault (the vault of the heavens) protected, in so far as each evolving ego is concerned, by a gigantic time-lock combination. As with such a vault in a bank or business house, the passage of time turns the tumblers of the lock this way and that until all are in exactly the right relationship to each other when, at the moment for which the lock is set, the relationship is perfect and the vault may be swung open.

So with the heavenly vault. The wheel turns this way and that—the planets (the tumblers) move forward and retrograde—the signs also revolve. Innumerable combinations of these "tumblers" are formed until at last the one sole combination expressing a given ego appears in the heavens, and at that moment and no

other the vault swings open for this ego permitting his entry into physical life. A chart of the heavens at that exact moment is his natal horoscope. It causes nothing—it indicates everything.

It will be seen then that there are no such things as planetary or sidereal "influences". They do not, cannot, exist. The "Influences" or Indicators? facts negative them. But there are planetary and sidereal indicators. How may we be sure of that? How know that the natal horoscope has any value?

The only correct answer is—by personal experiment and observation. Do not take anybody's word for the truth or otherwise of astrology. Perhaps they are trying to deceive you for their own purposes. Or perhaps they are sincere but mistaken. If you have confidence in them you may of course choose to believe them and take what they tell you on faith as we have to take so many other things in life on faith. Well and good if you wish to do so, but the answer was to the question, how may we be sure? And there is no way to be scientifically sure of anything save to investigate for oneself. That is what the writer did, rejecting everybody's say as to the truth of astrology, even that of leaders in whom he had the greatest confidence. The approach to astrology was made in a bitterly hostile frame of mind, many years ago, with the fixed preconception that examination would show it to be an outrageous fraud. Challenged, because of hostile remarks, to master the subject thoroughly before attacking it, the study of astrology was actually undertaken by this writer for the purpose of "exposing" it. He found that he would only be stultifying himself to attempt any such "exposure". That, grotesque, fantastic, as it then seemed, the horoscope indicated in the most amazing, even startling, fashion the nature and capabilities of the individual and the general trend of his destiny. It was a perfect case of "coming to scoff and remaining to wonder".

It is true that this is the hard way of arriving at the truth or falsity of a subject, but it is the only sure way. It is easy to take one's opinions, pro or con, ready-made from others; but to dig for oneself, to learn a new subject from the ground up, to ferret out the facts by personal experiment, by long-continued observation—*hic labor, hoc opus est*. But the immense satisfaction of being able to say, "I know", instead of "I think so", far outweighs the effort, strenuous as it is. The time the present writer put in to mastering astrology in

order to be able to attack it successfully, changed the entire course of his life. And for the better.

If this method be followed by those who really wish to know for themselves whether or not there is truth in astrology, it will save energy and time. The seeker will be in the happy position of relying only on what he himself has discovered to be true. He will not have to speculate on the *bona-fides* of others or on their capacity for disinterested analysis of evidence.

But if definite events cannot be predicted from the natal horoscope—

Value of
Knowledge

if, contrary to popular opinion, the astrologer cannot determine from the chart what the native *will* do at any given time—of what value is a knowledge of astrology?

What residuum of truth is left after the many falsities have been eliminated?

It is true that there is no known astrological means of knowing in

Gives Directions

advance what course of action a person will take, regardless of how numerous or powerful may be the so-called

influences (indicators) prevailing at a stated period. It can be determined, however with a precision almost inerrant, what he *should* do. It has been found, through observations extending over centuries, even millenia, that certain types of "direction" (current planetary and sidereal influences) point to certain types of action as desirable or undesirable at any particular time. If the native in whose horoscope such directions are present governs his actions according to these indicators he will have much better success than if he disregards them.

Thus an aggregation of aspects or positions occurring by direction

Opportunities and
Warnings

to the Ascendant, and all favourable, would be a clear zodiacal assurance that change of any kind might be confidently made—that the time had arrived for change

and that such opportunities as might arise during the change-favouring period should by all means be taken advantage of. Similarly should the directions to the Ascendant be adverse, a warning, equally emphatic, *not* to change, but to continue in routine paths, would be sounded. Such directions are very easy for the astrologer to interpret. It is when they conflict, with some favouring and others cautioning, that skill and judgment need to be called into play. And conflicting directions are found in a horoscope far more often than directions all similar in character.

It may be asked how one could make a change when the directions so indicated, if no opportunity for change presented itself. But therein lies the "mystery" of the horoscope. Where directions to the Ascendant are numerous and strong, whether they be good, bad or conflicting, opportunity for change *will* occur. A time has arrived in the life when that particular potential actualizes itself. The native, without knowing why, if he is not an astrologer, will feel himself impelled to change. Some opportunity, perhaps more than one, will arise or he himself will be moved to create one, which he will do, If the directions (favouring or otherwise) are sufficiently powerful the urge will be almost irresistible. Yet he will find himself confronted with the customary uncertainty which confronts everyone (except, perhaps, the astrologer) when contemplating a new step in life. Is it for the best? Should he let well-enough alone? Will he regret it, if he makes the move? Has he taken all factors into account or will some unforeseen condition upset his careful planning?

The answer obviously is, that no one, no human being, certainly, is omniscient enough to take *all* factors into account "Go" or "Refrain" on anything. Always there is a chance, and much more than a chance, that some one or more circumstances, wholly unexpected, unguarded against, may cause the best-laid plans to "gang agley". But Nature, which has provided for all human needs in the physical world, which has furnished an antidote for every poison, a remedy or preventive for every ill, has not left man without an answer to his cry for guidance when torn between conflicting possibilities of action. The horoscope at any and all times will supply the answer, will chart the course. It will tell the questioner, "Go" or "Refrain". It is truly both a map of the karma and a guide to the dharma of the current incarnation.

While only one outstanding example has been cited of the assistance the horoscope can render to the perplexed, such instances might be multiplied indefinitely. It is equally applicable to every question in every department of life. Taking the twelve "houses" of the horoscope in succession and selecting only a few typical matters presided over by each house, the horoscope is competent to aid in deciding such widely varying issues as the following :

(1) Affairs the outcome of which is contingent upon personal effort ; change of all kinds. (2) Money matters. (3) Short journeys ; affairs of the brothers and sisters ; all matters relating to transportation, papers and

correspondence, writings. (4) The home; the parent exercising the least influence in the life; the ultimate outcome of any matter; the end of life. (5) The children, courtship, speculation. (6) Health, employment, employees. (7) Marriage, open enemies, creditors, relationships with others. (8) Death, wills, legacies, things appertaining to the dead. (9) Voyages, long journeys, religion, philosophy, the higher mind, publications. (10) Occupation, business, fame, honour, reputation, advancement, the parent exercising the greatest influence in the life. (11) Friends, hopes, wishes, ambitions. (12) Secret enemies, societies, institutions, occultism, sorrow, limitation.

From the above very incomplete list it will be seen what a broad range of subjects may be referred to the horoscope for

The Governing
Factor

decisions. There is, in fact, no possible event which can occur on which the chart is not competent to offer

guidance. In proof of this sweeping statement it can only be urged that the challenger experiment for himself—learn astrology, set up his own chart, consult it when in doubt and direct his course in accordance with its showings. It may be boldly affirmed that if he takes the trouble to master the subject thoroughly, exercises care in his calculations and uses good judgment in his interpretations, he will discover that the facts are as stated. He will find that enterprises begun under favouring zodiacal auspices succeed, *providing possibility of such success is indicated by the natal chart*, always the governing factor. He will equally discover that projects commenced under unfavourable "influences" (the word is used for convenience only), either fail or are consummated with extreme difficulty, even though the natal chart smiles on their achievement.

Always, of course, the action must be efficient. To rely on good aspects to bring undeserved success, when planning and execution have been inferior, is to lean on a broken reed. And to expect favourable "directions" to bring achievement into the life of a nature foreign to natal chart indications, will also bring disappointment.

But where the three factors are all present—good natal significations, fortunate directions, competent action—success is assured. At least, in the experience of the present writer, it has always followed, given these three pre-requisites. If the doubter explain this by suggesting that "the wish is father to the thought", that the expectation of success is the psychology of success, he will be suggesting no more than the writer suggested to himself, upon making the

The Three Factors

above discovery. A simple check appeared to be to go back to successes achieved prior to his first contact with astrology, calculating the influences then prevailing with the view of determining if ignorance of their existence would prevent them from operating.

This was done in a dozen or more cases with the result that no instance was discovered where adequate astrological causes were not present, and no instance was discovered where a "run" of outstandingly favourable directions, coupled with similar natal influences and appropriate mental and physical action, did not produce noteworthy results.

The writer can do no more than sincerely chronicle his own experience, divorced from self-deception and earnestly recognizing the obligation of the motto of The Theosophical Society. "There is no Religion higher than Truth".

Knowing many others who have tested the validity of astrology by the same infallible method of personal experience—knowing of no case where such test has brought disillusionment, but countless cases where it has brought conviction—he feels that in this direction only lies certainty for any inquirer. Others may parrot-like repeat that astrology is true or is not true, basing their opinions upon their own theoretical speculation or upon hearsay. Their testimony is valueless unless it represents conclusions drawn from their own carefully performed experiments.

It may be asked if a delineation by an astrologer unknown to the native, which is correct in its estimate of the character, abilities and disposition of the latter, may not be taken as competent evidence of the truth of astrology. Persuasive, certainly, but not so conclusive as the personal experimentation method because of the tendency of the human mind to invent conventional reasons for phenomena which are new to it. There may always be a lingering doubt in the mind of the native who receives ever so accurate a delineation, that perhaps the astrologer obtained his facts from some extraneous source—from a mutual friend or even by guesser based on the handwriting, the style of notepaper, the address or (if the delineation is given personally) by the appearance, dress, voice or manner of the native.

The writer was much amazed, after delineating the horoscope of a celebrated dramatic critic of outstanding intelligence and ability, to be informed that the delineation was one hundred per cent correct but that his results must have been obtained by "muscle-reading", which would

have been a considerably harder feat than the actual astrological method employed.

The Directed
Horoscope

The value of the "directed" horoscope, great though it is, is not inferior to the value of the natal horoscope itself which, competently interpreted, furnishes a perfect key to the character, talents, constitutional defects, if any, and lines of least resistance to success. The astrologer can determine these, in what may seem to be an almost uncanny fashion, without the slightest knowledge of the native, other than the time and date of birth and the sex. However, where advice on a given subject is desired it is well for the astrologer to be taken into the confidence of the one who consults him. The prevailing influences seize on whatever conditions or circumstances of a like nature to themselves happen to be present at the time. The astrologer can do a better piece of work if he can adapt the intangibles he sees in the horoscope to concrete possibilities. When one visits a physician and starts to describe one's symptoms, one is not immediately stopped by the Doctor with the request that the latter be allowed to guess what is the matter. Yet often the astrologer is expected to play the undignified and humiliating role of fortune-teller, and his stock rises according as he may be successful in making a series of sensational pronouncements which are not helpful except that they confirm what the native already knew or thought he knew about himself.

Self-deception

The value of a delineation is largely in the discovery of what the native did not previously know, and if the owner of the horoscope takes issue with any fact relating to his character or abilities which does not fit in with his preconceived idea of himself, the delineation will be of no more assistance than the diagnosis of a medical specialist would be to one who felt that he knew better than the Doctor what ailed him. As a matter of fact the horoscope, competently interpreted, is inerrant as to the fundamentals of the nature. But many people are unwilling to face the truth about themselves. They have built up an ideal picture bearing no relation to reality and while this is all to the good, if a serious attempt is made to measure up to the ideal, it is mere self-deception where such attempt is lacking.

Astrology—a true
Science

Similarly there are many who do not suspect the very real talents the natal chart shows them to possess. Second rate musicians who would make first rate lawyers; mediocre professional men who would do well in the business field and *vice versa*—the horoscope infallibly points them out. We may

discount all the foolish and exaggerated claims made for astrology and there still remains a large residuum of superlative value which cannot be called into question. Again, the seeker must prove this for himself. The writer states facts he knows to be true . . . has proved for himself to be true in his own chart, in the horoscopes of members of his family, in the hundreds or thousands of charts he has delineated over a period of more than twenty years. Starting as has been said with a definite prejudice against the entire subject, he convinced himself against his own wish and will. It is true that the sense of the scientific world still negatives the idea that astrology can be a true science. Yet as someone has rightly said, if a thousand people hold the same opinion regarding something on which they have no first-hand information, their collective opinion is inferior to that of one individual who does have such first-hand information.

Guide to
Matrimony

Another useful function of astrology is in comparison of the natal charts of those contemplating matrimony, partnership or other close personal association. The method employed is so elementary that a student-astrologer, knowing little more than how to set up a horoscope accurately, can undertake it. Yet it may save a lifetime of disharmony and unhappiness if its findings are heeded. How do we know this?—Merely by comparing many horoscopes of the happily married or of harmonious partnerships and discovering that the requisite benefic interchanges of planetary positions are present, and the reverse with the mismatched and the quarrelling business associates. We react to others, indeed, according to the harmony or otherwise of our respective planetary and sidereal placements.

Try for Yourself

Still another use of astrology is to determine the best time for the commencement of any undertaking, for the most efficient performance of some difficult piece of work. The technique is so well-recognized that it may be said to be standardized. Here again the proof lies in the simple fact that "it works". If the time be right the project moves along smoothly to completion; if wrong, unexpected difficulties delay or perhaps frustrate altogether the fulfilment of the enterprise. The same admonition must again be given to the challenger of the accuracy of these remarks—"Try for yourself. Accept or reject on what you find".

One adventuring in a strange country would be lacking in common-sense if he failed to provide himself with a map of the terrain he intended to cover, when such a map was obtainable. For the freshly incarnating

ego the world is a strange land—so far as the personality is concerned, a new land, a country full of pitfalls, traps, *cul-de-sacs* and unsafe ground. The horoscope is the map, which he may consult or disregard as he sees fit. There is no compulsion, but as a man does not deliberately choose to blindfold himself and stumble along as best he may, so the voluntary ignoring of so valuable a guide as the horoscope surely is not the part of wisdom. Soon or late science will recognize astrology which it now rejects as it recognizes psychology which it once rejected. Soon or late it will admit the possibility of delineating character and many other important matters from the horoscope which it now denies. Once science denied the possibility that man might fly in a heavier-than-air machine but the logic of events permits that denial no longer. We who believe in

astrology because we know of our own knowledge that astrology is true, invite scientists to study the subject in the scientific manner, not rejecting *a priori*, because that happens to be the scientific fashion, but setting aside prejudice and desiring only to know the truth. If this be done we verily believe that those who have the initiative and courage to do it will find themselves able to repeat the memorable reply of that great scientist, Sir Isaac Newton, to Archbishop Whately, who reproached him for his belief in so great a "superstition" as astrology: "I believe it Your Grace, because I have studied it. You disbelieve it, because you have not".

NOTE

I

There are two schools of thought; one school maintains that the position of the heavenly bodies merely indicates man's destiny, just as a clock indicates time; the author of the article here belongs to this school of thought. There is another school which maintains that the heavenly bodies, over and above indicating destiny, also affect¹ it and are its cause. The monograph on "Medicine" and Note II following this are illustrations of the implications of the second school of thought.

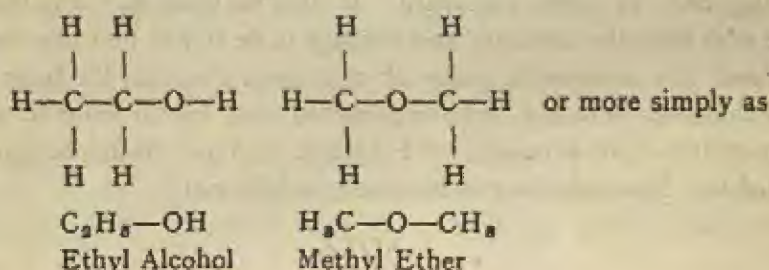
The question² which puzzles some people as to why persons born at the same time and place are affected differently though the position of the heavenly bodies be almost the same, may be explained by the fact that

¹ Diagram 7 facing p. 288 in Part II, Vol. I of this Series gives an insight into the inter-relationship between the heavenly bodies and man.

² Bavink, *The Anatomy of Modern Science*, p. 297.

all factors are not similar, much less identical, in these cases, one of the most important varying factors being the constitution of the person himself. The constitution of one person differs from that of another chemically, physically, electrically, magnetically, biologically, psychologically, etc. And that is why two persons born at the same time and place and practically under the same position of heavenly bodies are affected differently. There are hundreds of examples in the science of Organic Chemistry, of substances having even the *same* composition but different constitutions being affected differently by the same reagents under identical conditions of experiment.

For example, ethyl alcohol and methyl ether have both the same chemical composition namely, C_2H_6O , that is each of the molecules consists of two atoms of carbon (C), six atoms of hydrogen (H), and one atom of oxygen (O) and yet they are two quite different substances because the atoms within the molecule are arranged differently in each case as shown below :



Having the same composition but different constitutions the action of reagents on them is also different.

Similarly, there are 16 different kinds of sugar, all having the same composition, namely, $C_6H_{12}O_6$. Here again, the action of the same reagents on these 16 differently constituted sugars is different.

In the case of two individuals born at the same time and place and consequently under the same position of the heavenly bodies, one should expect the influences on both of them to be different for the two individuals would be different not only in their constitutions but also in their composition. Consequently, the "life histories" of such two individuals need not be similar as would ordinarily be supposed.¹

Here there is food for thought for those who wish to study the subject and find out for themselves the truth about astrology.—ED.

¹ Bavink, *The Anatomy of Modern Science*, p. 297.

II

"... The solar system is a living being, of which the sun is both the brain and the heart. The different planets are the organs of this organic entity. Our earth is one. They all work together to produce the solar system as an organism, or a group of organs. *All things contribute to all things.* Nothing happens on this earth, from the waving of a frond of fern in the wind to the most awful earthquake the world has ever known, except by such co-operating cosmic agency. All are produced mainly by the earth, but with the co-operation of the sun and moon, the planets and comets, for this organic entity moves in synchronous measures of destiny. *All things contribute to all things.* The birth of every baby is produced by the solar system, by the earth, especially by the mother; yet all things contribute to produce that baby. The stars do have their effect upon us, most undoubtedly so; and the sun and planets and comets, because the solar system is an organic living thing, and therefore everything within it anywhere is affected by everything within it everywhere. Surely this is true; and it is a wonderful picture".

—G. DE PURUCKER, *Studies in Occult Philosophy*, p. 295.

The above thought-provoking paragraph embodying the views of G. de Purucker is also worth brooding over.¹—ED.

¹ *Theosophia*, Vol. VI, No. 6 (36), March—April, 1930.

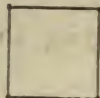
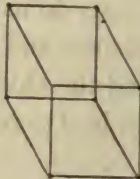
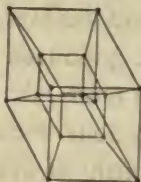
	ZERO DIMENSIONS		ONE DIMENSION	TWO DIMENSIONS		THREE DIMENSIONS		FOUR DIMENSIONS		GENERAL LAW
	POINT		LINE	SQUARE		CUBE		TESSERACT		
	.		—						.	
BOUNDING POINTS	1 $= 2^0$	2 $= 2^1$		4 $= 2^2$	8 $= 2^3$	16 $= 2^4$				<u>BOUNDING POINTS</u> *TWICE THE NUMBER OF POINTS IN THE PRECEDING FIGURE OR IN POWERS OF 2
BOUNDING LINES	0	1		4	12	32				<u>BOUNDING LINE ●</u> *TWICE THE NUMBER OF LINES IN THE PRECEDING FIGURE *ONE LINE FOR EACH POINT IN THE PRECEDING FIG.
BOUNDING SURFACES	0	0		1	6	24				<u>BOUNDING SURFACES</u> *TWICE THE NUMBER OF SURFACES IN THE PRECEDING FIGURE *ONE SURFACE FOR EACH LINE IN THE PRECEDING FIG.
BOUNDING SOLIDS	0	0		0	1	8				<u>BOUNDING SOLIDS</u> *TWICE THE NUMBER OF SOLIDS IN THE PRECEDING FIGURE *ONE SOLID FOR EACH PLANE IN THE PRECEDING FIGURE

FIG. 1

THE GEOMETRICAL RELATIONSHIPS BETWEEN "DIMENSIONS"

A STUDY IN THE FOURTH DIMENSION¹

By R. G. PIZZIGHELLI

"We are in reality living in space of many dimensions, and the limits imposed upon our comprehension of it at different stages are always within our consciousness only, and so are truly objective".—C. W. LEADBEATER

"The difficulty in seeing the Fourth Dimension is largely due to our self-centredness. The act of visualising a higher figure is an act of self-realisation, of not widening one's mental and material horizons, but of increasing the spaciousness of the soul. . . . The experiment must of necessity be invisible to physical consciousness since its fulness cannot be rendered in terms of dimensional experience. The experiment must take place in the mind".—A. C. HANLON

Objects of the Study

THERE are four main objects for a study of this kind, though each student will probably find others for himself. The first object is to gain a deeper understanding of the relation of Space, Matter and Consciousness. The use of Geometry in Metaphysics, as was done in the Pythagorean School, gives an insight into the realms of other orders of matter from those we know, and can, when properly followed up, eventually lead to the development of clairvoyance. This study leads us to a comprehension of the nature and demonstration of the "occult" aspect of Nature. But perhaps its greatest virtue is the necessity in this type of study of abandoning all rigid conceptions and keeping one's ideas of Reality fluidic.

Geometrical Relations between Dimensions (Fig. 1)

We are well acquainted with the three dimensions of space which we see around us every day, and which we make use of constantly in one way or another. They are proven, as it were. Can we not then prove at least the feasibility of other dimensions?

¹ A Resume of Lectures delivered in South Africa and at Adyar, India.

Working on a geometrical basis, the simplest form that we know is the point. If that point travels into another position, leaving a trail behind it, it draws a line terminated by two points, the original and the new position of the point. If we do the same thing with a line, moving it at right angles and parallel to itself to the same distance as before, and with the terminal points once more leaving a trail behind them, we find that we now have on our paper a square figure, with four points at the four angles.

We have thus evolved a two-dimensional figure from a point, which has no dimension. Repeating the same process yet again, and drawing the square up into the third dimension, out of the paper, as it were, we find that we have constructed a cube. We cannot illustrate this three-dimensional figure accurately on paper, but can merely give either perspective or isometric views of it. In the cube we find we have a figure bounded by eight points, and upon analysis we find that the process we have followed gives us the following data:

DIAGRAM I—GEOMETRICAL RELATIONSHIP BETWEEN " DIMENSIONS "

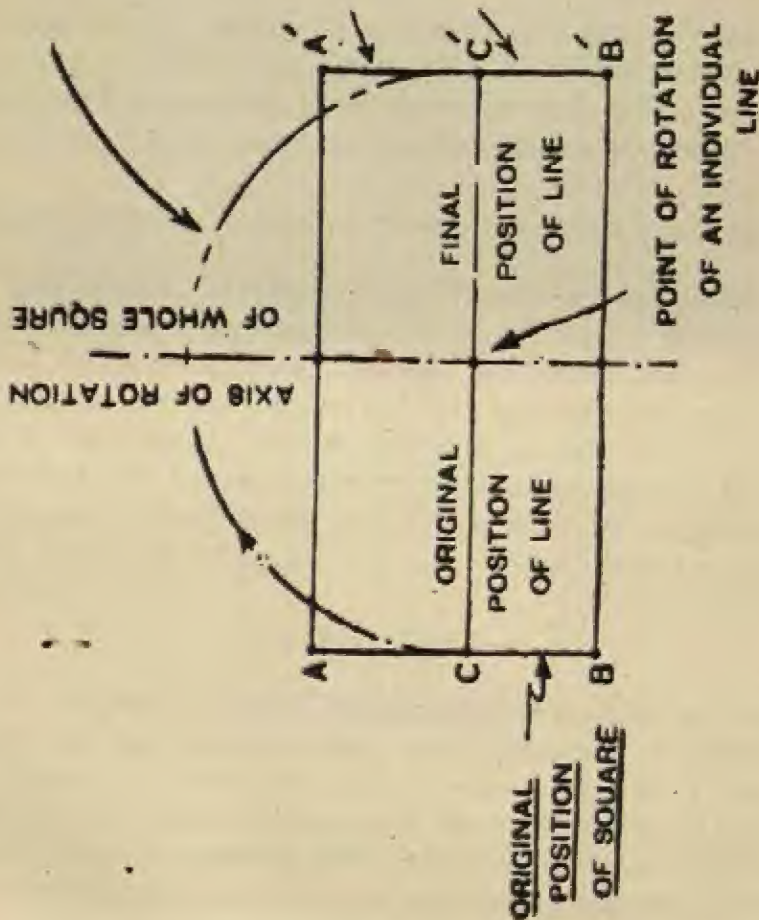
Building the Tesseract

From this it would appear reasonable to expect that if one could but move a cube parallel to itself, and at right angles, we would derive a four-dimensional solid, bounded by sixteen points (2^4), thirty-two lines, twenty-four surfaces, and eight solids.

Just as we cannot accurately portray the properties of the cube on a piece of paper, so we cannot accurately express a tesseract in three dimensions, for a three-dimensional cross-section would appear to us as a cube. However, by a process of reasoning we have arrived at some of its characteristics, and can construct therefrom isometric or perspective models of the tesseract.

We are aware that no number of points can ever make a line, no number of lines can ever make a plane, and no number of planes can ever make a solid. Therefore it is reasonable to suppose that no number of solids can make a four-dimensional "solid". In each case the figure is of a different order, with another dimension, added. As it is in each case an *infinite* number of points, lines, planes etc., that go to make up the

ROTATION IN TWO & THREE DIMENSIONS



MOVEMENT OF EACH LINE EFFECTED
BY A 2 DIMENSIONAL ROTATION
ABOUT A POINT
IN THE SAME PLANE AS THE
ORIGINAL SQUARE

"MIRROR IMAGE" OF ORIGINAL SQUARE
OR ORIGINAL SQUARE "PULLED INSIDE-OUT"

FINAL POSITION OF SQUARE
AFTER ROTATION

BY 1/ ROTATING ORIGINAL SQUARE IN
3 DIMENSIONS ABOUT AN AXIS.

OR 2/ ROTATING EACH INDIVIDUAL LINE OF
THE ORIGINAL SQUARE IN TWO
DIMENSIONS ABOUT A POINT.

(AFTER HINTON)

Fig. 2

100 POTENTIAL
 1000000
 CURRENT



DE THE ELECTRODE
 WHITE ELECTRODE

DE THE
 WHITE ELECTRODE

DE THE
 WHITE ELECTRODE

WHITE ELECTRODE

WHITE ELECTRODE

WHITE ELECTRODE
 AXIS OF VOLTAGE

next order of figure, it presents an illuminating idea of infinity as indicating a "stepping-up" of consciousness to something higher and more comprehensive.

Rotation (Figs. 2 & 3)

For a plane to rotate in its own world it must rotate about a point ; if it rotates about a line it must leave its own world and move in a higher dimension. In the same way, to rotate a solid in its own world of three dimensions it must be rotated about a line : it cannot be rotated about a plane and still retain its form.

DIAGRAM II—ROTATION IN TWO AND THREE DIMENSIONS

Following the analogy, if a solid be rotated in four-dimensional space it must be rotated about a plane. To effect this in three dimensions the solid may be split up into planes, each of which is rotated about a line. The result is a "mirror-image", or the solid turned inside out.

DIAGRAM III—ROTATION IN THREE AND FOUR DIMENSIONS

This principle of "mirror-images" and, we may surmise, fourth-dimensional rotation, is widely used in Nature, and is illustrated most excellently by the human body. Taking a plane through the length of the spine, you will find that the right and left sides are mirror-images of each other. In like manner, there is hardly an example from the animal, vegetable and mineral kingdoms to which this principle cannot be applied.

It would almost appear that the whole of the physical world is "turned upon a potter's wheel", as so many of the ancient scriptures have stated.

Examples of Rotation

In the field of Science, this principle of Rotation can be demonstrated by an electrical experiment, as set forth by C. H. Hinton in his book, *The Fourth Dimension*, and in order to provide a reasonable explanation of astronomical phenomena, Sir Arthur Eddington has formulated the theory of spherical space, which he defines as "the skin of a four-dimensional hypersphere". In connection with the Theory of

Relativity, the geometrical interpretation of the "Lorentz Transformation Equations"

$$x' = \frac{x - vt}{\sqrt{1 - v^2/c^2}}; \quad y' = y; \quad z' = z; \quad t' = \frac{t - \frac{v}{c^2}x}{\sqrt{1 - v^2/c^2}}.$$

connecting the three spacial dimensions and time in the two systems of co-ordinates, points to the existence of a four dimensional space or "Continuum". The transformation from one system to the other being effected by rotation in four dimensional space.¹

Occult Phenomena

But as every point on a line, or in a plane, is accessible from another dimension, we begin to understand the rationale of some of the spiritualistic phenomena, such as dematerialisation and apports. We are told by C. W. Leadbeater, for instance, of a solid iron ring, too small to go over his hand, which was passed three times on to his wrist at a séance. This ring, and objects taken from locked boxes, or appearing from nowhere, may well be moved through the fourth dimension.

Stepping into the Fourth Dimension

Answering an enquiry as to how to make oneself invisible, C. W. Leadbeater is said to have given two "easy" ways; the first being the old Rosicrucian method of bending the rays of light around one, and the second being to "step into" the fourth dimension.

To a jaded mind this brings relief as an indication that the possibilities of the physical plane are not yet exhausted, and the fourth dimension may well be one of its characteristics that we have yet to appreciate. After all, we are only half-way through the Fourth Round.

Clairvoyance and the Fourth Dimension

In his book, *Clairvoyance*, C. W. Leadbeater states that "The fourth dimension (as expounded by Mr. Hinton) is the only idea which gives any kind of explanation down here of the constantly observed facts of astral vision", and he says elsewhere that if in our physical life we

¹ See *Relativity* by Albert Einstein—Methuen, London.

ROTATION IN THREE & FOUR DIMENSIONS

MOVEMENT OF EACH PLANE EFFECTED
BY A 3 DIMENSIONAL ROTATION
ABOUT AN AXIS

IN THE SAME 3 DIMENSIONAL
SPACE AS THE ORIGINAL CUBE

ORIGINAL POSITION
OF CUBE

MIRROR IMAGE OF ORIGINAL CUBE
OR ORIGINAL CUBE "PULLED INSIDE-OUT"

FINAL POSITION OF CUBE
AFTER ROTATION

ORIGINAL POSITION
OF PLANES

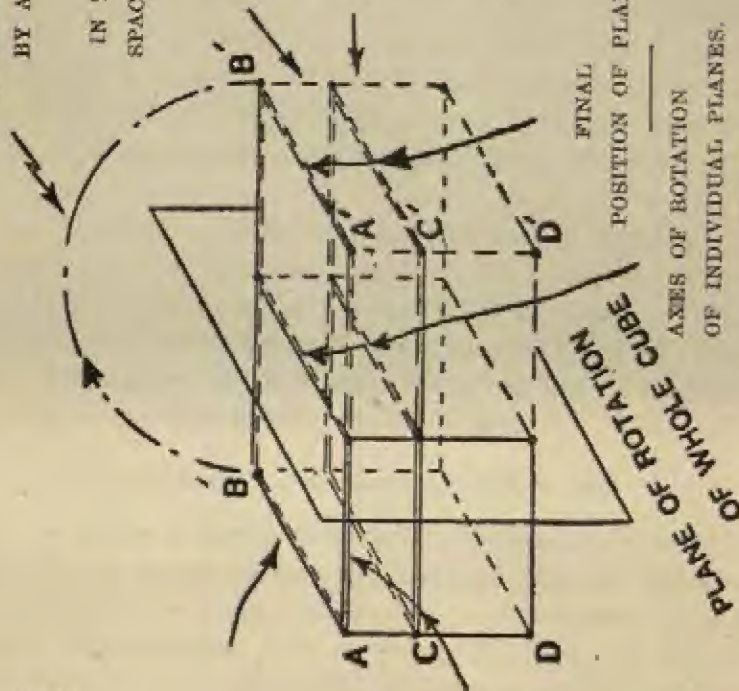
BY 1/ ROTATING ORIGINAL CUBE
IN 4 DIMENSIONS ABOUT A PLANE.

OR 2/ ROTATING EACH INDIVIDUAL
PLANE IN 3 DIMENSIONS
ABOUT A LINE.

FINAL
POSITION OF PLANES.

PLANE OF ROTATION
OF WHOLE CUBE

AXES OF ROTATION
OF INDIVIDUAL PLANES.



(AFTER HINTON)

FIG. 3

1871-1872



1871-1872

1871-1872

1871-1872

1871-1872

are conscious of only three dimensions, it is not because only three exist, but because these three are the only ones as yet within the grasp of our physical brains. The limitation is within ourselves and not in the space in which we live. His statement that apart from actual astral vision the study of the fourth dimension is probably the only method by which a clear comprehension of the appearance of astral objects can be gained, and through this, a fair idea of astral life, is stimulating in itself, and when coupled with the information that students have succeeded in awakening astral faculties by a determined effort to visualise an astral or four dimensional object, it lends determination and hope for ourselves.

This exercise undoubtedly demands a considerable effort from the brain, but we know that it can be done because it has been done. A. C. Hanlon, in his article in the "Theosophist" of November 1927, says, "the process by which the mind is evolved from a material to a philosophic one is a purging process in which the personality is changed from the dominant to a subordinate position, and this purging process must be gone through to a certain extent before the mind can see the fourth dimension".

An interesting sidelight on the subject of clairvoyance and the fourth dimension is the statement made by C. W. Leadbeater that although four dimensional sight is within the reach of every astral entity, yet most people on the astral plane have no more idea of such a faculty after death than they had during physical life. There, as here, the consciousness requires training to realise the plane in its fulness.

The Fourth Dimension in Modern Art

In the realms of Art we find further confirmation. Picasso, perhaps the most debated painter of our age, declared that to depict only one aspect of an object was not realism, the reality included every possible aspect from every possible point of view. Naturally, one who does not know the rules of this "real realist" painting is apt to find a picture of this type something of a muddle. But next time we see a "modern" picture we might examine it with some care to see if the artist cannot perhaps give us a hint about astral vision and the fourth dimension, which sees things all at once, as though each separate part were laid out neatly with none obscuring any other.

The geometrical conception of Nature is also a principle of modern art. It was Cezanne who said: "All Nature can be expressed by the cube.

the cone, and the cylinder : anyone who can paint those simple forms can paint Nature".

The Pythagorean School

In the Pythagorean School of old, mathematics as we know it was merely taught as a preparation for the study and comprehension of the fourth dimension and the nature of higher space. Taken thus as a whole and as an introduction to astral development, it leads to the understanding of all the octaves of vibration, of a great deal of which modern science knows nothing, and the intricate relation of number, colour and sound.¹ By symbols the ultimates of this Universe were set before the student in the so-called "Playthings" of Dionysus, a spinning top, representing the divine child, atom ; a ball, the earth ; a mirror, that astral light which readily reflects and reverses everything ; and a set of dice, the Platonic solids, which in themselves contain the keys to this mysterious Universe.

Thus, geometrical metaphysics taught the students to understand the implications of the various three-dimensional sections of the "mighty cone of space".

Visualising the Tesseract (Figs. 4 & 5)

Hinton's book, "The Fourth Dimension", gives in detail a method of visualising a tesseract by rearranging a number of coloured cubes. This method implies the setting aside of the personal outlook, and fully corroborates Hanlon's remarks on this subject, quoted later.

DIAGRAM IV—THE DEVELOPMENT OF A "PERSPECTIVE MODEL" OF THE TESSERACT

DIAGRAM V—THE DEVELOPMENT OF AN "ISOMETRIC MODEL" OF THE TESSERACT

In his vision of the future set down in "The Beginning of the Sixth Root Race", C. W. Leadbeater describes how children in the Yellow Temple are trained to build up mentally an image of the tesseract, the four-dimensional cube. This is done step by step, and is easily within the grasp of most of the children. The ease with which they will accomplish it is a sore contrast to the immense mental effort we have to expend in order to imagine such a figure.

¹ Vide footnote, p. 238, Vol. I, this series.—Ed.

THE DEVELOPMENT OF A "PERSPECTIVE MODEL" OF THE
TESSERACT IN A MANNER SIMILAR TO THE DEVELOPMENT
OF A PERSPECTIVE VIEW OF THE CUBE

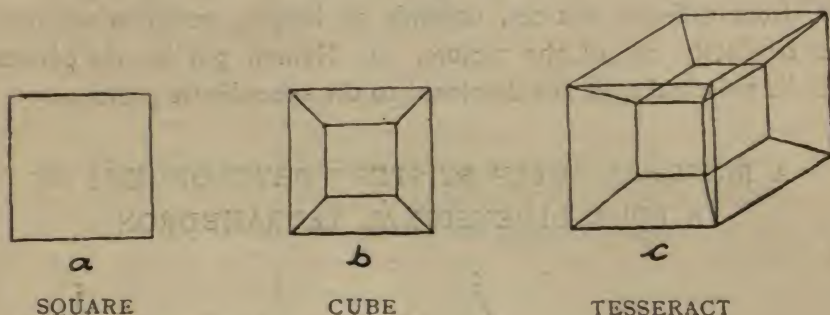


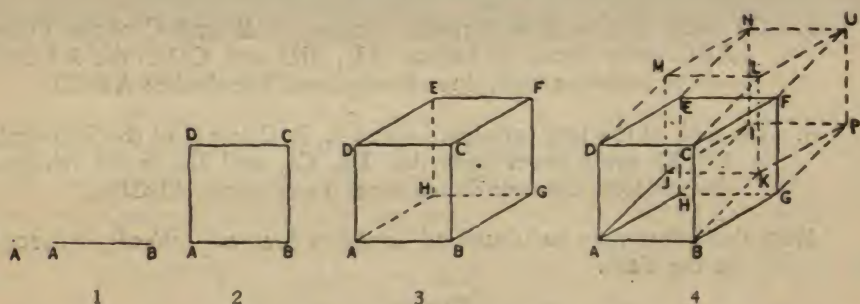
Fig. (a) Original Square

Fig. (b) Two Dimensional "Perspective" of Cube made by erecting a Trapezium (representing a Square) on each side of the original square (a) so that inside edges form a small Square within the original one.

Fig. (c) Three Dimensional "Perspective Model" of a Tesseract made by erecting a truncated four-sided Pyramid (The Three Dimensional equivalent of the Trapezium) on each face of a Cube so that the inside faces of the Pyramids (representing Cubes) form a small Cube within the original, outer Cube.

FIG. 4

THE DEVELOPMENT OF AN "ISOMETRIC MODEL"
OF THE TESSERACT



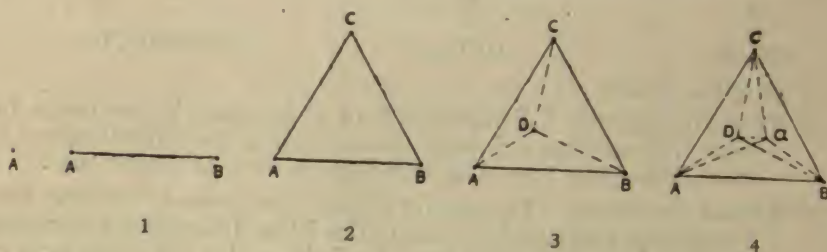
1. A primary point "A" is "pulled out" of its original position to "B" forming the line AB.
2. The line AB is "pulled out" (at right angles to itself) for a distance equal to its own length to position DC forming the square ABCD in two dimensions.
3. The square ABCD is similarly "pulled out" into the 3rd Dimension to form the cube ABCDEFGH represented above in an Isometric view.
4. The cube ABCDEFGH is again "pulled out" (for a similar distance AB) into the 4th Dimension to form the Tesseract shown above as a representation of a three dimensional "Isometric Model" ABCDEFGHIJKLMNOP.

FIG. 5

Eliminating the Normal Outlook

Success in this exercise, we are told not once, but over and over again, from different sources, depends on keeping ourselves and our attitudes resolutely out of the picture. As Hanlon put it; the personality has to be switched from the dominant to the subordinate position.

A RATIONAL "STEP BY STEP" DEVELOPMENT OF A FOUR DIMENSIONAL TETRAHEDRON



1. On a primary point "A" of zero dimensions erect a line AB in the 1st dimension.
2. On the two end points A and B of the one dimensional line AB erect AC and BC (equal in length to AB) in the 2nd dimension to form the two dimensional plane triangle ABC.
3. On each of the three terminal points, A, B and C of the Triangle ABC erect lines, as before, AD, BD and CD in the 3rd dimension to form the solid, three dimensional Tetrahedron ABCD.
4. On each of the four terminal points, A, B, C and D of the Tetrahedron ABCD again erect lines Aa, Ba, Ca, and Da, in the 4th dimension, to form the four dimensional Tetrahedron ABCDa.

How this figure may be visualised (*and has been visualised*), is described in the Text.

FIG. 6

A Four Dimensional Tetrahedron (Fig. 6)

Before passing on to other aspects of the fourth dimension, let us look at the possibility of other four dimensional figures. A. C. Hanlon in an article called "Four Dimensional Consciousness" in the "Theosophist" of November 1927, describes in some detail his experiments in

visualising a four dimensional tetrahedron. I quote some of his own words :

This figure is a four dimensional "solid" enclosed by five tetrahedra, each tetrahedron contacting by means of its four triangular faces one face of each of the other tetrahedra. . . The five tetrahedra related thus are the outside boundaries of the four dimensional figure. . . As a preliminary to the actual visualisation, and as a "stimulant to the imagination, the evolution that culminated in the super-tetrahedron can be mentally depicted. From the point evolved the line, then followed the equilateral triangle, and finally the tetrahedron. It is well, while picturing all this, to try to be the line, the triangle, the tetrahedron, to feel their spacial limitations. This helps to clear the mind of space prejudices, and makes it receptive to the idea that space is something different from that which it generally knows. . . Having first visualised a tetrahedron, from its centre extend a line to each of its corners. This will divide it into four shortened tetrahedra. The whole thing, of course, is still three dimensional. The reader must now try to look at the figure from four points at once, from the outside of each of the four triangles of the primary tetrahedron. This need not be done perfectly, so long as it is done sufficiently well for the purpose, which is to keep a watch on all the exterior of the tetrahedron at the one time. The next operation is to force the shortened tetrahedra to assume their true tetrahedral height, without shifting their bases, and without entering into one another, and still meet in the point "a". It seems a case of checkmate without a doubt. The conditions to be observed seem so rigid that no movement can take place. This feeling of rigidity is due to what could be called "space prejudices". One of the results of visualising higher dimensional figures is the disappearance, first, of spacial, then, of more personal prejudices. Geometry thus attains its full stature as a character-builder, giving width and tolerance to the mind. To make the four dimensional form, the four tetrahedra have to go through this movement, and so nothing remains but to force them to do it. The will must be constantly exerted in an endeavour to draw the centre or apex "a" away from the centre of the primary tetrahedron, without moving it in the tetrahedron itself. It is a matter of steady application of the will, at the same time sensing for the new direction, and the "miracle" happens. The four tetrahedra previously contained in the primary one expand, and there appears between the five tetrahedra a portion of four dimensional space, the content of the super-tetrahedron. . . There can be no doubt as to the genuineness of the figure created. The authority of a scientist who maintains that the fourth dimension is purely a mathematical quantity gives way to the authority of experience. All learnedness counts for nothing when a higher dimension has illumined the mind. The feeling is like that of a man after he has experienced to the full the ego-consciousness. To all arguments against reincarnation he is impervious. "I have seen, I have lived through it all, and I know it is true". There can be no higher authority than that.

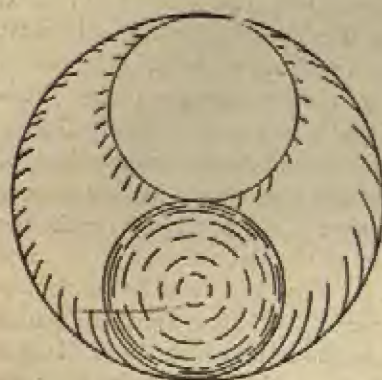
A Four Dimensional Sphere (Fig. 7)

Another figure which has been seen is a four dimensional sphere. The following is a brief account of Mr. van Maanen's vision of a four dimensional sphere, as given in "Some Occult Experiences" by Johan van Maanen and C. W. Leadbeater:

It was an ordinary three-dimensional globe, out of which on each side, beginning at its vertical circumference, bent, tapering horns proceeded, which, with a circular bend, united their points above the globe from which they started.

The effect is best indicated by circumscribing the numeral 8 by a circle. So three circles are formed, the lower one representing the initial globe, the upper one representing empty space, and the greater circle circumscribing the whole.

REPRESENTATIONS OF FOUR DIMENSIONAL SPHERES

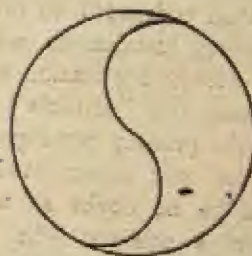


A FOUR DIMENSIONAL
SPHERE

as visualised by
J. van Maanen
and corroborated by
C. W. Leadbeater
(See Text.)



THE WINGED SPHERE
of ancient Egypt and the
head of the Caduceus of Hermes,
the Messenger of the Gods, of
ancient Greece.



THE YANG YIN OF CHINA
(Representing Duality)

"If it be now understood that the upper circle does not exist, and the lower (small) circle is identical with the outer (large) circle, the impression will have been conveyed, at least to some extent. We may also call the total impression that of a ring".

DIAGRAM VII—THE FOUR DIMENSIONAL SPHERE

Commenting on this description and diagram, C. W. Leadbeater writes in the same book :

The winged globe in Egypt was a symbol, or perhaps rather a mnemonic, of this same idea; but outside of the Mysteries it was never drawn so nearly in its real shape as this.

Striking as this drawing is, its value lies chiefly in its suggestiveness to those who have once seen that which it represents. One can hardly hope that it will convey a clear idea of the reality to those who have never seen it. It is difficult to get an animal to understand a picture—apparently because he is incapable of grasping the idea that perspective on a flat surface is intended to represent objects which he knows only as solid. The average man is in exactly the same position with regard to any drawing or model which is intended to suggest to him the idea of the fourth dimension; and so, clever and suggestive as this is, I doubt whether it will be of much help to the average reader.

The man who has seen the reality might well be helped by this to bring into his ordinary life a flash of that higher consciousness; and in that case he might perhaps be able to supply, in his thought, what must necessarily be lacking in the physical plane drawing.

Mr. van Maanen contended that this four dimensional sphere was the simplest of the four dimensional solids, but in this C. W. Leadbeater disagrees with him, claiming that distinction for the tesseract, adding, however, that his opinion may be due to the fact that all his earlier experiments were conducted with the latter figure.

Other Four Dimensional Theories

As C. W. Leadbeater has remarked, of all the many and extremely diverse subjects which present themselves to the Theosophical student, the fourth dimension is among the most difficult, and is certainly one of the most fascinating. A number of different theories have naturally been advanced, argued, refuted or upheld. Bearing in mind that truth is relative, and we can see so very small a portion of the whole picture, it stands to reason that some at least of these theories present different aspects of the same truth.

Probably the best known of these theories is that propounded by the noted English student, E. L. Gardner, who contends that four dimensional consciousness is in reality merely a fuller awareness of the content of two-dimensional space in all its potentialities. This same principle acts for other dimensions also, the consciousness returning, as it were, the way it came, until, with the final return to no-dimensional point-consciousness, comes omniscience. We have reached the state of the circle which has "its centre everywhere, and its circumference nowhere".

This most interesting theory will bear a considerable amount of study and thought, but does not lie within the scope of this paper. I merely mention it in passing.

PART II

THE SECRET DOCTRINE AND THE FOURTH DIMENSION

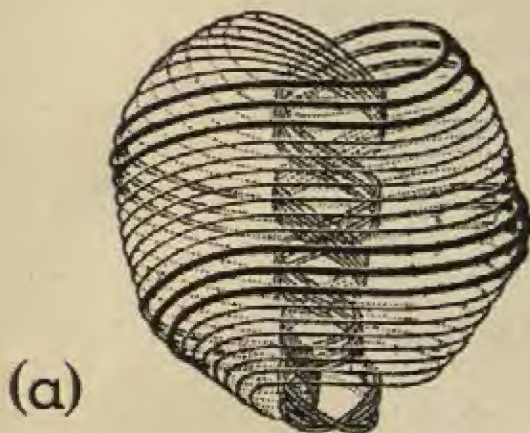
Elements, Dimensions and Rounds

In her commentary on Stanza VII in Vol. I of "The Secret Doctrine", H. P. Blavatsky speaks of the concurrent development of the elements and dimensions, one per Round. She insists that the word "dimension" can only be used figuratively because we can have no conception of the type of matter manifested in the early rounds. Living in a "three-dimensional" world, we think of things in terms of our three dimensions, whereas both the elements and the dimensions were, in all probability, something very different from what we now know as those elements and dimensions. Therefore our attempts to understand and illustrate these unknowable orders of matter must necessarily be figurative, as one and two dimensional objects are mere mental abstractions in this our three-dimensional world.

In the same way, our attempts to illustrate the fourth dimension must also be figurative, with this important difference—the fourth dimension is in the process of development, so we stand a better chance of comprehension than if it were a thing of the past.

H. P. Blavatsky also links the dimensions with the development of the senses of man, and following up her hints in this direction, we might well connect up the fourth dimension with the future sense of clairvoyance.

THE DIMENSIONS OF SPACE CORRELATED WITH
THE STRUCTURE OF THE ATOM



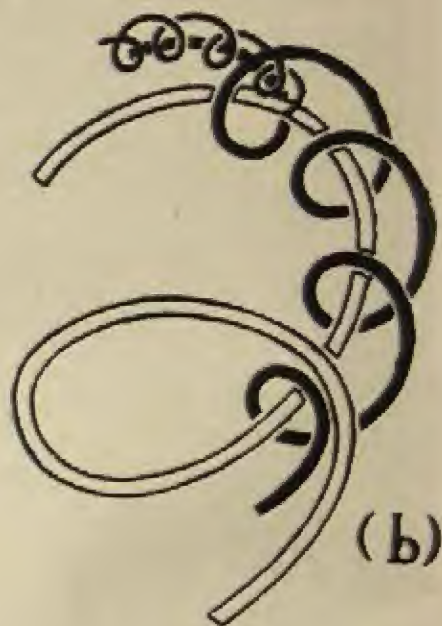
(a)

AN ULTIMATE PHYSICAL ATOM

To trained clairvoyant sight
The Atom is seen to consist of
Three major and seven minor spirals.

Each of these spirals consists
Of six lesser spirals built up
As indicated in (b).

All the spirals are mutually
At right angles as shown in (b).
As each is vivified, another "Dimension"
Of space and consciousness is manifested.



(b)

ENLARGED VIEW OF A
SMALL SECTION OF
THE SPIRALS

(After
C. Jinārajāśā)

FIG. 8

Parallel Evolution of Consciousness and Matter

On the subject of the changing state of matter, H. P. Blavatsky writes:

The elements, whether simple or compound, could not have remained the same since the commencement of evolution of our Chain. Everything in "the Universe progresses steadily in the Great Cycle, while incessantly going up and down in the smaller cycles. Nature is never stationary during a Manvantara, as it is ever Becoming, not simply Being; the mineral, vegetable and human life are always adapting their organisms to the then reigning elements; and therefore those elements were then fitted for them, as they are now for the life of the present humanity".

Evolution of Atoms—Spirillae (Fig. 8)

"The atom is a sun in miniature in its own universe of the inconceivably minute"—"Occult Chemistry", footnote p. 23.

The whole scheme of evolution may be regarded as variations on a single theme. H. P. Blavatsky has pointed out to us that matter and consciousness are growing and expanding side by side, so that they are at all times a mutual fit. Turning from the transcendent to the immanent, and regarding the humble atom with some awe, we find the same story retold in all its details.

Quite apart from any form in which it may temporarily be incorporated, the atom is evolving on its own account. We know from our studies, of the intricate formation of the ultimate physical atom, with the six sets of spirillae around each major spiral, these spirillae are whirling currents each at right angles to the one round which it turns, and to that turning about it.

DIAGRAM VIII—SPIRILLAE

One of these spirillae, we are told, is animated in each round, and therefore there are four active spirillae in the majority of atoms at present. Each spirilla brought into full activity, brings with it the consciousness of one dimension. The peculiar feature of consciousness acting through one spirilla is that it gives its matter the appearance of solidity, but when viewed from a higher dimension it appears flat. So we have physical (three

dimensional) matter appearing flat, or spread out, when seen from the fourth dimension.

The best possible opportunities for evolution are presented to atoms in the bodies of human beings, and permanent atoms are therefore much more evolved than others. "They are", C. W. Leadbeater tells us, "at the fullest development of the Seventh Round atoms in men who are about to become Adepts—as highly developed as atoms can possibly be".

We have probably heard the Lord Buddha referred to as a "Seventh Rounder", but have we any real idea what this statement means? It means that for His vehicles fully developed atoms were collected, atoms with all seven spirillae fully active. We can imagine that there was none of this valuable material left over when the task of building His bodies was completed. C. W. Leadbeater has stated that both the material and the bodies were so unique that they were not permitted to disintegrate, and have been used subsequently by Sri Shankaracharya and the Lord Maitreya.

Atoms and the Dimensions of Space

The spirillae are, therefore, definitely associated with the Rounds, and with H. P. Blavatsky's statement about the development of the dimensions of space. The fact that the spirillae are mutually at right angles to each other seems to bear out in a striking fashion the fact of all the final seven spacial dimensions being at right angles to each other also.

Cosmic planes at Right Angles (Fig. 9)

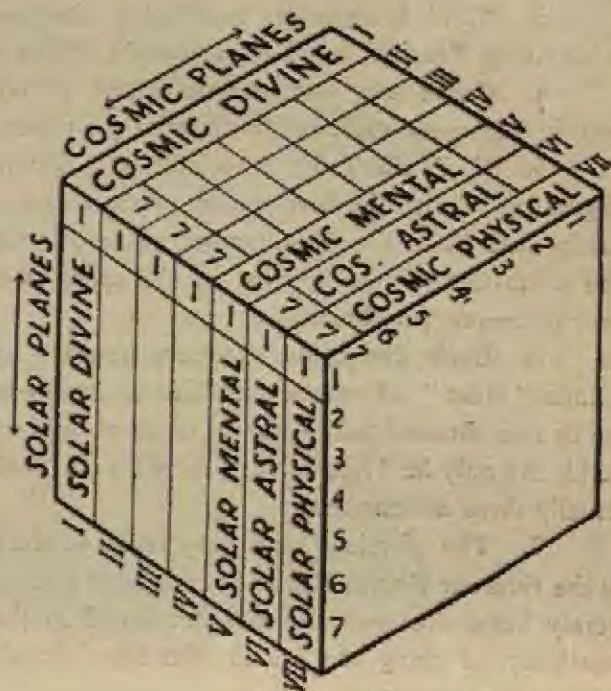
DIAGRAM IX—PLANES OF THE SOLAR SYSTEM

We are all familiar with this diagram from "First Principles of Theosophy", showing the atomic sub-planes of our seven solar system planes going off at right angles, as it were, to form the seven lowest sub-planes of the Cosmic planes. As this matter is cosmic, it is reasonable to suppose that it preceded the creation of the solar system, and will also remain after its dissolution. In "Talks on the Path of Occultism",¹ C. W. Leadbeater relates an experiment whereby he travelled from the atomic mental plane, at right angles, and found himself able to see the cosmic mental plane—an indescribable experience!

¹ See p. 60, *Talks on the Path of Occultism*.—ED.

THE COSMIC PLANES

From the Atom to the Cosmos the mysterious principle of "Moving at Right Angles" into another Dimension and into a higher form of consciousness seems to hold good.



After
(C. Jinarājadāsa)

The Cosmic Planes appear to be "Projections" "At Right Angles" to the Solar System Planes. C. W. Leadbeater, "Moving at Right Angles" to our Solar System Mental Plane, found himself in the Cosmic Mental Plane.

Those marked 1 are the atomic planes of the Solar System.

FIG. 9

PART III

Summary

1. The fourth dimension is a reasonable geometrical hypothesis.
2. The properties of four dimensional space, derived geometrically, are found useful and reasonable in many branches of science, and find expression in many natural phenomena.
3. C. W. Leadbeater, developing clairvoyance under instruction by his Adept Teacher, could see tesseracts on the astral plane.
4. Conversely, students developed clairvoyance by stretching the brain in systematic exercises to visualise the tesseract.
5. H. P. Blavatsky associates the dimensions (which she calls "figurative") with the development of the elements—Fire, Air, Water and Earth—and links the development of matter with that of consciousness. The animation of the spirillæ in the atom is also accomplished at the same rate—one per Round.
6. Each dimension therefore appears to be associated with a definite "order" of matter peculiar to itself—any attempt to describe a one or two dimensional world in terms of lines and planes in the physical world can only be "figurative", as all such models, drawings etc., are actually three dimensional.
7. The physical plane may really be the fourth dimensional plane by the time our Fourth Round is completed; our sense of three dimensions merely being the perfect sense developed in the previous Round. The possibility of using the fourth dimension in physical life seems to be borne out by statements such as :
 H. P. B. : "Our present Fourth Round contains potentially as much of spirit as of matter". S.D., I, p. 271.
 C. W. L. : "We must not make the mistake of thinking that the fourth dimension belongs to the astral world only, and that physical matter exists somehow in a different kind of space from astral or mental". *Hidden Side of Things*, p. 21.
 "Stepping into the fourth dimension" to make oneself invisible.
 Sixth Root Race children, and present-day students, visualising the tesseract in their physical brains.
8. By the end of the Seventh Round, seven dimensions, seven elements, and seven spirillæ will have been "created" or brought into activity.
9. The Cosmic Planes seem to be "at right angles" to our Solar System planes, the point of contact being the atomic sub-planes of our Solar planes.

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LAW

BY A. RANGASWAMI AIYAR

AMONGST the valuable lessons taught by Theosophy or Divine Wisdom, one of the most outstanding is the presentation of an ordered scheme of evolution up the steps of which climb all lives, which in their essence constitute One Life, after they have descended to their lowest stage of material form in the mineral kingdom. They scale the heights of evolution, and ultimately become again the One. The Oneness of Life, and the immutability of the Laws under which the One becomes the 'many' and the 'many' grow from the simple to the complex in the structure and organization of their forms, and through those forms, in the magnitude and comprehensiveness displayed by their growing consciousness in its

triple aspect of Power, Love and Knowledge, and are again resolved into the One, now richer and mightier in some incomprehensible manner, as the result of this long pilgrimage, introduce us to the basic concepts of Love and Justice. These concepts must in one form or other guide the relations of the 'many' amongst themselves at several stages of their age-long journey. As all are parts of the One, and as their solidarity and oneness are more real in their essence than their apparent multiplicity in evanescent or transient forms, love is gradually recognized as the feeling which should characterize the relations of one part towards another. As the supreme law of causation underlies the operation of all the unerring laws of nature, justice comes to be recognized as the mode in which this Love should manifest itself and regulate the interaction between the several parts.

Again through Theosophy, we learn that Humanity in its present evolution on our earth passes through Seven Root Races. Until Humanity arrived at the middle of the third Root Race it was not endowed with self-conscious mind or Manas and was scarcely distinguishable from the members of the animal kingdom. The

Love and Justice

Root Races

First and Second Root Races, and the early subdivisions of the Third progressed under the compelling laws of evolution pressing from without, and they could hardly generate any, consciously self-initiated impulse calculated to accelerate that evolution. For being without the self-conscious mind, they could not develop the moral sense which should precede any effort at self-propelled evolution accelerated from within.

That an effect follows a cause is the enunciation of law in its simplest form. An elementary understanding of this Law in governing many of the events of daily life cannot but dawn on the mind of the savage, even while involuntarily evolving above the level of the brute. This would be the germinal conception of law at this stage.

In the middle of the Third Root Race, a tremendous impetus was given to the awakening of this fire of self-consciousness in this primitive man which, left to the unaided course of natural evolution, would perhaps have taken innumerable aeons to accomplish. This awakening was due to the arrival on earth of highly evolved beings in a very advanced stage of evolution from the planet Venus. These Lords of the Flame or Fire Mist, as They are called, with Their August Head who, since then has remained as 'the King' or 'the Supreme Ruler' of Earth, took charge of the Inner Government of our world and became the Guides, Protectors and Rulers of the infant Humanity in whom the manasic principle was just beginning to show forth, though the desire nature still continued to be the dominating principle for ages.

Since the consciousness of the members of this Root Race was centred on the physical plane, and was tossed about by surging passions and desires manifesting themselves in their elemental fury, while the spark of infant mind was just helping to fan them into flame rather than guide and control them, the elementary notions of justice which prevailed amongst them could not have definitely extended beyond a narrow circle of those near of kin and might perhaps have extended in a vague and indefinite manner to the members of their clan. Justice depended on physical strength and what succeeded was right and what ended in failure was deemed wrong. The savage Lemurian, with his uncontrollable animal propensities, his fits of

passion and jealousy, his whims and caprices, and his desire to possess and enjoy what he deemed objects of physical pleasure and avoid what would give him physical pain or mental annoyance, had still to recognize that there should be certain elementary rules guiding him in his relations with those with whom he came in contact.

As sub-race after sub-race appeared, and the Divine Kings incarnated amongst them, simple laws were enunciated for enabling the race to grow in tolerable security and prevent the comparatively civilized and peace-loving from suffering at the hands of the more savage and cruel. Some of these rules still survive in the form of taboos amongst the savage races today. Amongst them it is abhorrent to do certain acts, with the implication that the individual who does them will bring down, not merely on himself or herself, but on the community of which he or she is a member, a terrible blight, usually described as a 'curse', which may take any number of diverse forms—death, sickness, sterility, hunger. If some of the taboos appear to be arbitrary and not based on reason, there are yet others such as prohibition of incest, shedding blood of a woman, and parricide which are quite praiseworthy. In any case taboos set up a distinction, though arbitrary, between right and wrong.¹ What passed as their criminal law was crude, and punishments or rather vengeance, inflicted or taken, for offences committed, involved much physical suffering, and consisted of death, torture, mutilation, sacrifice to propitiate evil spirits, slavery and the like.

The Third Root Race showed the predominance of physical nature swayed by Kāma or desire, and guided by incipient mind. Its members delighted in crude rituals or ceremonials whose distinguishing feature was strong physical activity combined with excitement of the passional nature. These characteristics are seen in their present-day representatives, the Negroes of America with their voodoo rituals, though considerably influenced and modified by their contact with the later Root Races and their sub-races.

Root Races though appearing successively on earth, yet overlap each other and exist simultaneously during some stages of their history. Even though the Fifth Race is dominant now, yet the majority of the earth's population consists of Fourth Race people and the members of the Third Root Race are still numerous. We

Desire-Nature
Predominant

Might is Right

¹ Jenk, *New Jurisprudence*, pp. 55-56.

Lost Lemuria, W. Scott Elliot, 1904 Ed., pp. 28, 29, 32, 33, 35.

can see that legal notions of the Third Root Race are still current even now amongst all these three races though with rapidly diminishing vigour. The blood feuds descending from generation to generation which are still extant amongst the semi-civilized tribes in the North-West Frontier of India or the more refined family feuds of the Capulets and Montagues dramatized by Shakespeare are only survivals of the legal concepts legitimately belonging to the Third Root Race, and survive as anachronisms so far as the Fourth and Fifth Root Races and their sub-races are concerned. If the doctrine that 'might is right' still prevails in modern times amongst civilized nations and individuals, it is a remnant of the legal idea of the Third Root Race which we of a later race have not yet succeeded in out-growing, and therefore, to that extent we are yet lingering in comparative savagery in opposition to the great plan of evolution.

The Fourth Root Race succeeded the Third Root Race in its dominance over earth, and the racial consciousness was now raised to the emotional level energized by the working of the concrete or analytical mind. No emotion is possible except by the interaction of desire and lower mind. The law maker in the Fourth Root Race was more emphatically the family, the clan and the tribe and less the individual as in the Third Root Race. The law became more stable and was crystallized in the family or tribal custom or usage which took the place of the personal judgment of the individual as to what was right and wrong. The Paterfamilias became the supreme head of the family and the arbiter of the destinies of its members.

Nevertheless there arose in the Fourth Root Race, as stable states began to make their appearance, a vague perception of the part which the state should play in the prevention of the commission of the wrong and the punishment of the offender especially when the offence would disturb the peace or stability of the state. An earnest attempt was now made to match the punishment to the seriousness of the offence, and strange are the results seen in the formulation of laws from the standpoint of modern jurisprudence. We have its survival in the Mosaic law of 'an eye for an eye' and 'a tooth for a tooth'. For example, in the code of Khammurabi which gives us an idea of the juristic conceptions prevalent in Ancient Babylonia about 2300 B.C. reflecting Fourth Race legal ideals right up to our Fifth Root Race times, it is provided that if

a house built by one employed to build, fell and killed the owner, the builder was to be put to death and if the owner's son died the builder's son was to be killed (clauses 229-230). If anyone struck a free-born woman and caused her to die his daughter should be put to death (clauses 209 and 210). If one destroyed the eye of a free-born man, his one eye should be destroyed (clause 196). Similarly, Kautilya in his *Artha Shastra* says 'he who hurts the tongue or nose of another shall have his fingers cut off'.¹

The Fourth Root Race had its own distinctive punishments such as imprisonment, deprivation of property and outlawry. Many of these sanctions for crimes have even lingered in the history of the Fifth Root Race as a legacy from the Fourth, as well as the severity of the criminal law which in Britain prescribed capital punishment for petty thefts right up to the early part of the 19th century. Amongst methods for finding out the guilt or innocence of persons charged with offences, in addition to personal testimonies or evidence of eye witnesses, we find recourse to omens, augurs, trials by ordeals, etc., for the ascertainment of truth for which the easy response of the members of that Root Race to psychic impressions was a probable cause.

The third or Toltec sub-race of the Fourth Root Race developed the highest civilization amongst the Atlantean Peoples. But the Kāmic principle naturally reached its zenith during the Fourth Root Race and asserted itself more and more in Humanity. This led to the destruction of Atlantis and the restarting of civilization in the Fifth Root Race.

Even when the Fourth Root Race in its days of decline was dominated by the kāma-manas principle, there was for example the civilization in ancient Peru, about 14,000 years ago, where under the guidance of Adept Kings and their Lieutenants a state of society was built which foreshadowed the future influence of Buddhi or intuition when it would become the natural heritage of the average humanity of the Sixth Root Race. Naturally that civilization manifested a conception of law and justice, appropriate to those ideals and partaking of their essential features. It is described as follows: "The monarchy was absolute. But it is different from the monarchies we are familiar with in our history in that the King had also absolute responsibility for everything. . . . There

¹ Shyama Sastry's translation, 1915 Ed., p, 288.

were practically no laws in old Peru and consequently no prisons ; indeed our system of penalties and punishments would have appeared absolutely unreasonable to the nation of which we are thinking. The life of a citizen of the Empire was in their eyes the only life worth living ; but it was thoroughly understood that every man held his place in the community only on condition that he fulfilled his duties towards it. If a man in any way fell short of this (an almost unheard of occurrence, because of the force of the opinion which is above described) an explanation would be expected by the officer in charge of his district ; and if on examination he was proved blameworthy, he would be reprimanded by that officer. Anything like continued neglect of duty ranked among the heinous offences such as murder or theft ; and for all these there was only one punishment—that of exile ”.¹

Now coming to the beginning of the Fifth Root Race, Vaivasvata Manu or the Manu of that Root Race gave it its type of culture and civilization, shaped its social polity and framed its laws. In the Fourth Root Race the racial consciousness was raised through the passionate to the lower mental level. Similarly, in the Fifth Root Race the racial consciousness was to be raised from the lower mental to the higher mental level or that of synthetic mind. As Root Race succeeds Root Race higher powers are brought into play, and human progress gains in consequence greater and greater momentum. Since in the Fifth Root Race, the middle principle or manas was to become dominant, a new plan was adopted in equipping the culture and civilization of that race with certain features which did not exist before. Instead of sub-race after sub-race

First Sub-race—a
Synthesis of Racial
Culture

of the Fifth Root Race as they appeared successively on the arena of human history contributing their separately evolved characteristics of human knowledge, civilization and culture, it was planned that the first or the Hindu sub-race should from its earliest history contain within itself the several elements contributing to the totality of the Root Race knowledge, civilization and culture, each of which as the special characteristic of a succeeding sub-race would be carried by it to a very high level of development. In other words, the first sub-race presented a broad synthesis of the Racial culture, and an outline sketch of the full development of its elements to become manifested in the succeeding sub-races was portrayed in their essential characteristics in the culture of that first sub-race,

¹ *Man*, 1913 Ed., pp. 144-147.

These fundamental or basic principles are as follows :

1. Human Justice should strive to be a reflection of the Divine Justice which governs the world. " Depending on the Eternal Law, let the Judge decide the suits of men ".¹
2. All the different Kingdoms of Nature comprising the human and subhuman kingdoms, as well as gods or Devas, are partakers of the One Life and are therefore inter-related and inter-dependent.²
3. This inter-relation and inter-dependence between all beings give rise to a conception of justice or Dharma giving consideration to their mutual duties or obligations towards each other. Therefore man has duties to discharge rather than rights to enforce. His duties are symbolized as the Five great Sacrifices in the Code of Manu.³
4. Although all men are equal or rather identical in their essence, being partakers of the One Life, yet they are not equal in their intelligence, character and capacity, as they stand in different stages of evolution, and their duties or obligations towards each other are more onerous or lighter as their stage in evolution is higher or lower. This is illustrated by the maxim *Noblesse Oblige*.
5. Man's present life on earth is one in a series of lives past and future on this earth and separated by existences in worlds subtler than ours, the whole forming a planned field of evolution. Therefore his earth-life should be well planned with reference to this comprehensive scheme of evolution by division into Āshramas or stages with their appropriate functions.
6. The recognition of the One Life of which all are partakers and of the fact that the differentiation of sexes is only a means for the gathering of different experiences through appropriate bodies or vehicles during the course of this life on earth, and that the individual, as a spiritual entity in his essential nature, is sexless, cannot but logically lead to the recognition of complete equality of man and woman with a difference in functions which makes them to a large extent complementary of each other in their earthly lives.⁴

¹ *Manu*, VIII. 8.

² *Ibid.*, 1-34-50.

³ *Ibid.*, III, 69-72.

⁴ *Cf. Manu* III, 55-57.

7. The family, which is intended to serve during the period of the Fifth Root Race as the nursery ground for the development of noble social virtues having their basis in love and self-sacrifice, is recognized as the unit whose aggregations constitute human societies.¹

The Family

8. Until the Sixth Root Race became ascendant, when intuition would be developed, recognizing the unity of all, Life with its corollary the Brotherhood of Man as facts and not merely as noble ideals, wars and battles could not be avoided owing to the presence of aggressors, and the aggressed. So wars and battles in self-defence are recognized as necessary, but one is warned not to strike with weapons concealed, nor with (such as are) barbed, poisoned and the points of which are blazing with fire, nor to hurt a foe supplicating or in flight or wounded.²

Wars in Self-
Defence

Most of the above are even now presenting problems which the thoughtful of the Fifth Root Race are trying to solve although we have reached its fifth sub-race. But the important point to be borne in mind is that these problems were set for solution even in the early beginnings of the first sub-race.

Problems to Solve

Roman Jurispru-
dence

Nevertheless in the Code of Manu and the several law books of the Hindus going by the name of Dharma Shastras, as well as the laws of the second and third sub-races, we find secular, religious and ceremonial laws mixed up together. In Ancient Egypt, for sacrilegious theft the criminal was punished with death. The Old Roman Law was a composite of *Fas*, *Jus* and *Bonimores*. *Fas* represented the will of the gods, the divine laws given for man on earth, regulating ceremonial as well as giving rules of conduct. *Jus* represented the laws framed by human agency, and *Bonimores* fell mainly within the jurisdiction of the family tribunals or the clan. In the criminal law amongst ancient Romans during the regal period, there was no clean line of demarcation between crime and civil injuries. Only when we come to the Roman branch of the Fifth Root Race in its imperial days do we find the beginnings of the science of jurisprudence which is the contribution of that branch of the fourth sub-race to human civilization. Rome with its sense of the value of order and discipline was peculiarly qualified to make that contribution. The psychic and the supernatural elements receded into

¹ *Manu*, IX, 45.

² *Ibid.*, VI, 90-93.

the background and a logical scheme of human rights and obligations with appropriate actions for enforcing them came to be evolved. This shows that when this stage was reached the concrete or analytical mind was coming more and more under the dominance of the abstract or synthetic mind, and became capable of evolving a system of jurisprudence separated from religion and ethics, based on its analytical capacity.

When a nation or community was divided into different social strata, set up in rigid compartments, making difficult or well nigh impossible, any movement for the individual to change his habitat from one to another, there arose the need

Political Community

for framing different laws to distinguish the rights and duties of one caste or class from another. The conception of a political community in the Middle Ages was that it was a collection of estates or orders governed by different laws—nobles, clergy, peasants, merchants, craftsmen.¹

Trial by ordeal only came to be given up when belief in miracle by order began to decline—in particular when the western Church forbade the clergy to take any further part in judicial ordeals in A.D. 1216. Then the courts commenced to build up the modern theory of judicial evidence.²

Judicial Evidence

When Martin Luther as the leading exponent of the movement of Reformation in Europe declared that the spiritual experience of the individual was of infinitely more value than the outward observances recognized by the Church in the stereotyped forms, he led the way for the recognition of the freedom of the individual, which really meant the greater inflow of powers from the higher or synthetic mind to the lower.

The Freedom of the Individual

Francis Bacon, who followed soon after, published his *Novum Organum* in 1620 and stood for reorganization of the sciences and the exposition of a new method by which the human mind might proceed with security and certainty towards the true end of all human thought and action.

New Method

The period between the peace of Westphalia in A.D. 1648 and the end of the 19th century gave rise to a great wave of Nationalism in the West, in which each Nation tried to stand for and accentuate its own peculiarities against those of its neighbours and to hold fast to its own National institutions as distinguished from those of other Nations. On the other hand,

¹ Jenk, *New Jurisprudence*, p. 143.

² *Ibid.*, p. 232.

we should recognize also the unifying influences which have grown from strength to strength during the past few centuries and the increasing importance given to study of historical and comparative methods. The generalizing and the synthetic conception of human arts and sciences is an indication of the coming sway of the higher or synthetic mind in bringing about

Equality of all
before Law

a true understanding of them than was possible when the analytical or the lower mind worked unaided with a separative outlook on the phenomena of life. In A.D. 1625

Grotius published his *De Jure Belli et Pacis* which is the foundation of modern international law. Another great work was *L'Esprit des Loix* published by Montesquieu in A.D. 1748 attempting a comprehensive survey of human law and social and political institutions. On the continent of Europe the prevalence of legal systems having a common foundation in Roman law gave an impetus to the study of Jurisprudence. In the 18th century the writings of Voltaire and Rousseau tended to spread the principles of common humanitarianism and whatever may be the merits of Rousseau's *Contrat Social* from the standpoint of the true origin of the state, their writings led to the liberation of the new democratic forces which, though getting beyond control under the slogan of *Liberté, Egalité, Fraternité*, and leading to the excesses of the French Revolution, ushered in the conception of equality of all before Law.

Growth of Law

The historical school of jurists, which now arose in Germany headed by Savigny, gave an impetus to the study of jurisprudence as an inductive science giving rise to a national law built upon the spontaneously developed social rules as distinguished from the codifying spirit engendered by the French Revolution, as a result of *a priori* deductions. The abolition of slavery as an established institution coming to us from hoary times is another landmark in the progress of humanity as influenced by the synthetic or abstract mind. The growth of modern nationalism in Europe and America during the 18th and 19th centuries put an end to the several law-making bodies within the state, and made the state itself the supreme authority for legislation within its area. Modern nationality became based on birth or domicile and not on racial affinity or religious persuasion as in older civilizations. Law became separated from religion and was pursued as a branch of human knowledge on its own merits for the promotion of human happiness. Bentham by the logical methods propounded in his writings

helped to introduce salutary reforms in the administrative machinery of government in the province of criminal law and in procedure both criminal and civil.

In the 19th century the theory of physical evolution propounded by Charles Darwin was extended in all directions, social, moral and legal. Sir Henry Maine who was the principal founder of historical and comparative jurisprudence, in his works tried to trace the earliest ideas of mankind as they are reflected in ancient law and to bring out their relation to modern thought, and helped to illustrate the process of the evolution of legal and political ideas from ancient to modern times.

Ancient Law and Modern Thought

Synthetic Mind

All these trends in the development of modern law indicate the synthesizing influence of the higher mind. Nationalism was itself the result of the interaction of the powers of the lower and higher mind in human consciousness. In bringing about a common bond of emotional and intellectual union between the inhabitants of a country belonging ethnically to different racial types, (as no country can be said to be occupied in modern times by a homogeneous community belonging to a single race) professing different religions, speaking in many cases different languages, and paying allegiance to divergent cultures, enabling them to sink all these differences in a common loyalty to a Motherland in which their physical lives are thrown together, the synthetic influence of the higher mind can be seen in operation. But in promoting an aggressive nationalism which erects an irresistible barrier between country and country, jealous and suspicious of one another, devising measures by which one can weaken or discomfit the plans of the other in seeking power, wealth or predominance, overcoming in their mutual relations in a spirit of conflict and hatred the more enduring though subtle and often ignored reality of human brotherhood and solidarity, the separative tendencies of the concrete mind can be seen in full operation.

Until the dormant influence of buddhic intuition is more and more awakened and comes into effective manifestation and the sixth sub-race of the Fifth Root Race becomes firmly established on earth, the concrete or analytical mind will often continue to play an independent role, though in diminishing degrees, without recognizing its true function as a dutiful and loyal agent for carrying out the operations of the higher mind in a world where actions, desires and thoughts interact with each other

intimately, and make up the events of human lives. The materialistic basis of modern legislation is a consequence of the independent tendencies of the lower mind and its natural revolt against the usages, customs, beliefs, and general organization of life and its activities as offending its sense of concrete logicity and its accepted canons of arriving at truth. This tendency has been further strengthened by strong nationalism concentrating its attention mainly on the development of the material factors on which national progress and prosperity depend.

**Materialistic
Tendency**

For bringing about the complete accomplishment of the analytical work of the fifth sub-race by gathering innumerable details of facts and arranging and classifying them in different ways in all available fields of intellectual effort, whether in the domain of objective sciences or in philosophical and metaphysical branches of study, or in the province of politics, sociology or law, a materialistic attitude of mind was a help in concentrating activities and doing intensive work in a limited region of thought and inquiry, though accompanied by all the disadvantages of ignoring or negating the play of the higher mind and intuition and giving a poor recognition to the importance of the culture of the emotions. The gathering of these details needs infinite patience, labour, precision and exactitude, which would not be exhibited to the same extent if the higher mind had already intuitively recognized the generalized truth underlying these facts. This materialistic attitude of modern scientific investigation is the natural result of its method of investigating truth by physical experiment and observation. It dismissed from its ken allegations of supersensual facts and phenomena. Naturally in the domain of law belief in abnormal powers, sorcery, witchcraft and the like, counting many victims in the Middle Ages, was discarded and condemned as superstitious. The rules of law and evidence came to have an objective basis.

Objective Basis

The humanitarian movement of the 18th and 19th centuries which abolished slavery and proclaimed the equality and dignity of common humanity came to pervade the domain of law also. Punishment or penalty or legal sanction was made proportionate to the magnitude of the offence committed. The death penalty for minor offences was abolished.

Penalties

It was seen that the very punishment of imprisonment inflicted on offenders, and the environments and conditions in jails had often quite the opposite effect to what was intended, by making the persons so punished

confirmed offenders and pushing them deeper into a career of crime. It was recognized that ameliorative conditions should be introduced in prison life which would enable the criminal to learn a trade, earn an honest livelihood, and become a decent citizen without the indelible stigma of a convict after leaving prison. It was still further recognized that the prison

Prison—a Training
School

could be fashioned into a school for the training of child souls lodged therein, for it was seen in many cases that the propensity to commit crime was due to the later entry of such human egos from the animal into the human kingdom than the average citizen, instead of an inherent perversion or original sin assumed to exist, and that it was possible by such training to enable their potential divinity to manifest itself in such better physical activity, higher emotional, artistic and mental culture, and nobler spiritual aspiration, as they might be capable of. While prison reform is thus advancing on lines tacitly recognizing the inherent divinity of human nature, first offenders in certain cases are allowed to go free on probation, so that the moral responsibility is evoked in them and they are saved from any possible deterioration by a stay in prison in association with less desirable or more hardened criminals. Special prominence has been given to the treatment of juvenile offenders as in their case it very often happens that a life of crime is more often the result of particular environments and lack of moral training and discipline for which the family, the society and the state are mainly responsible, stimulating and bringing into activity any latent germs of evil brought from past lives, which under different environments would have disappeared by atrophy or been destroyed by the cultivation of opposite tendencies. They are sent to reformatory schools instead of prisons, and enabled to grow into honest and respectable citizens.

The materialistic conception of law as confined to the regulation of human relations on the physical plane and the non-recognition of the fact that this earth is not standing by itself alone but is inter-related with other worlds; and more proximately and intimately with the next invisible world into which man passes immediately after death, stands in the way of the complete abolition of the death penalty.

If law recognized the bare fact that when a criminal is executed for murder or other heinous crime and is thrown violently into that subtle world of desire, he is stirred by his vindictive passion, anger, hate, jealousy and similar

Capital Punishment

Interdependence
of Worlds

emotions, but without the heavy handicap of a slow-moving ponderous physical body, can obsess others similarly disposed living on earth and stir them on to commit deeds of violence which they themselves might not do without such external stimulation, a powerful reason would arise, stronger than humanitarian sentiments, that in the interests of humanity on earth, it would be preferable to put the murderer in physical duress, and prevent him from injuring his neighbour, than to set him free on the astral plane by killing his physical body and thereby increasing his vicarious capacity to commit further misdeeds on earth. But this inter-dependence of worlds will be recognized more and more in the future.

In spite of the materialistic features of the modern law and the still lingering dependence on might for the up-
Conflict of Laws holding of national rights, the influence of the higher or synthetic mind was stimulated by the recognition in the field of national law of the need for making provision for conflict of laws. If a person born in one country becomes domiciled in another country and dies leaving movable properties in a third, by what law should the devolution of such property be governed? Each system of national laws had to provide for contingencies like the above. Thus the tendency grew up to build a private international law to meet these and similar conflicts among national laws.

A further development which took place after the first great World War was the rapid growth of Public International Law or International Morality. The establishment of the
International Morality Permanent Court of International Justice at the Hague was a landmark in the history of the Fifth Root Race. There were notable instances in which the decisions of that tribunal warded off serious conflicts between nations. It became a limb of the now defunct League of Nations which also strove in other fields with similar objects. But the weakness of the League was that there was no executive authority invested with powers to enforce its decisions and those decisions could only operate
The League of Nations by voluntary compliance. The nations who took part in the League of Nations and those who remained loyal to it either paid lip service to its ideals or were fettered by lingering homage to the older self serving ideals of the past which they were unwilling or afraid to give up. Therefore the League of Nations was powerless to prevent wars between Italy and Abyssinia, between China and

Japan, the suicidal civil war in Spain, and the later aggressions in Central Europe. The United States of America pursued a strictly isolationist policy and some nations broke away from the League.

But the march of evolution towards the practical application of Human Brotherhood in world affairs and in regulating the relations between States and Nations and Races and Communities as well as Individuals is inexorable, and the enforcement of law and justice will have to be effected by the stern reality of events if voluntary recognition is retarded or becomes difficult to be attained. The rise of Fascist Powers in Central Europe, and the highly aggressive methods they adopted towards other nations and races setting at naught the principles of Human Brotherhood

and the operation of law and justice amongst nations and races brought about the second World War. Even while the second World War was raging, the nations who were warring against such aggressions found the necessity for founding the United Nations Organization in 1945 to take the place of the League of Nations and to carry out its ideals much more effectively in the future and to stop future wars and to create conditions in the World in accordance with these ideals. The United

Nations Organization is shaped not only to declare the ideals of 'international peace and security', to promote 'international co-operation in solving international problems' and to encourage 'respect for human rights and fundamental freedoms for all', but also to promote 'higher standards of living, full employment and conditions of economic and social progress',

to find solutions of 'international, social, health, and related problems' and to strengthen 'cultural and educational co-operation'. It has attempted to create a machinery for carrying out its decisions even with the help of force if necessary in the last resort, to be contributed by its member States. It has a General Assembly for discussion, an executive body in its Security Council to take action, and an Economic and Social Council to study and make recommendations to the General Assembly with regard to the several humanitarian subjects with which it is concerned, a Trusteeship Council to help in administering territories placed under the trusteeship of the United Nations, and the International Court of Justice as its principal judicial organ with its statute based on the statute of the previous Permanent Court of International Justice. It has a well constituted Secretariat and other subsidiary organs. Public International Law will have full scope for development in no way

inferior to the development of Private National or Municipal laws.

International Law

International law will be developed into a fully articulated system of juristic type. There is provision in its charter for developing self-government in non-self-governing territories and there is an international trusteeship system working under the United Nations for the promotion of political, economic, social and educational advancement of the inhabitants of the territories who are placed under such trusteeship. These instruments of the United Nations Organization have no doubt limited powers. But they have the capacity to expand though temporary conflict in ideologies cannot but manifest as at present between the Soviet-controlled powers and the Western Democracies, which have ultimately to be worked out into a harmonious whole with the excellence of each retained and the defects eliminated. For evolution works both by adoption of methods bringing out success and the rejection of others found by practical experience to be erroneous.

How Evolution Works ?

Even good human endeavour in spite of apparent defects gathers fresh momentum after each failure and becomes established in success.

Achievements of the League of Nations

For Spirit is mighty and cannot be baffled in its fulfilment. The League of Nations attained notable success in those forms of human endeavour which did not impinge seriously on national pride and prestige, national ambitions and exploiting activities of nations. In the province of Labour, especially child labour, in the prevention of illicit traffic in women, in the suppression of regulation of trade in opium and other stupefying drugs and narcotics, and even in the province of finance, as for example, in the case of Austria, the League of Nations had notable achievements to its credit.

The United Nations Organization has started under far better auspices. It has arrested the war between Jews and Arabs in Palestine and between India and Pakistan in Kashmir.

Activities of the U.N.O.

Nations should have learnt by their sufferings in World War II that the world can ill afford to have the experience of a third World War. The United States have learnt that there is no place for any nation to live in isolation from other nations. India has risen as a free nation capable of contributing its unique spiritual attitude to the solutions of world problems. More nations have become members of the United Nations Organization than in the previous League of Nations.

The need is felt, though dimly, for the creation of a World Government without seriously encroaching on the authority of nations in their domestic affairs. Distance is disappearing owing to rapid means of transport by air and nations are being brought nearer together. Last but not least, the discovery of atomic bombs by more than one nation would prevent resort to war as a means of settling disputes between nations owing to their terrible powers of destruction, while atomic energy would become a wonderful instrument for promoting beneficent activities amongst men.

Antahkarana, the inner organ, acting as the bridge between the Lower and the Higher mind, stands for harmony, beauty and rhythm. In the realm of law, after the concrete mind came into its own in the progress of the Fifth Root Race, and applied itself to the rational systematization or codification of the different national laws, the sense of the artistic was displayed in the form and method of its legislation. Modern codes of law are expected to be logical in their ideas, precise in their significance, clear in their conception, concise without ambiguity and simple without obscurity, and with no unnecessary repetition and overlapping of subject matter, to enable every person to read and understand them, so that in theory the maxim *Ignorantia Juris non excusat* may not appear impossible to follow, at least to all outward appearance, though their increasing mass and growing complexity may well be the despair of the ordinary citizen. In spite of necessary terseness, there is a sense of the artistic and the beautiful in the arrangement of words and expressions in typical codes drafted by master-craftsmen in the art which make them classics in their class.

Though the synthesizing influence of the Higher Manas is growing stronger and stronger it does not fail to give due recognition and value to the freedom and dignity of individual man, which are recognized as valuable factors for the enrichment of the race as a whole. Outwardly we have witnessed the rise of political systems like Bolshevism in Russia, Fascism in Italy, and Nazism in Germany, sweeping aside with a stern hand all obstacles standing against their rise to dominant position and power, in which the totalitarian state counts for everything, and the individual is regarded more or less as a passive unit necessary for the composition of the real entity that counts, *i.e.*, the state. But this can only be a temporary phase. The theosophical point of view is that the human individual as a fragment of divinity is

valuable in himself, and for evolving that individuality to its perfection in all its aspects exists all this world of complex experience, and that he cannot be suppressed into a mere automaton for the benefit of a corporate body consisting of an aggregate of individuals, even though it be called a state or nation. There is a real solidarity of man, nay, the solidarity of One Life, comprising all the kingdoms of nature, including man. But the solidarity of Humanity, of which the solidarity of a nation is only a fractional phase, is intended to co-exist with perfect freedom of the individual. If any system of Government rises to power which ignores the one at the expense of the other, it can only have a transient existence, as it is partially false. It may no doubt strengthen the one phase which it aims to do, but it will be defeated and even destroyed if it works to destroy the other.

There is a trend visible in modern law recognizing that law is concerned with the creation, enumeration and maintenance of duties rather than of rights, and that rights come in only as accessories to duties, a conception that takes us back to the ruling idea in Hindu culture implied in the word 'Dharma'.

We see indications around us that woman is coming into her own, which are due not to a vague feeling of chivalrous regard shown by the strong towards the weak but to a recognition that she is equal to man but not identical with him, which is a sequel to the spiritual truth that the differentiation of the sexes is not in the Ātman but appertains to the three lower worlds, and is intended to subserve in the main for developing the diverse capacities of the individual, who is in his essential nature sexless in the world of synthetic or Higher Manas.

The rise of the new sub-race, *i.e.*, the sixth sub-race of the Fifth Root Race, is indicated at present in the coming into birth of isolated individuals here and there whose distinguishing characteristic is intuition, which is a foreshadowing of the Buddhist principle instead of mere higher ratiocination. Bishop C. W. Leadbeater describes the conditions obtaining in the colony of the sixth sub-race to be established in Southern California about 700 years hence by the future Manu of the Sixth Root Race in which that Root Race would have its beginnings, which will enable us to picture to ourselves the new conceptions of law which must take the place of those in vogue at present.¹ In that Colony of the nascent Sixth Root Race the jurisprudence evolved by the

¹ *Vijaya Manu* : pp. 359, 360, 437, 438, 454 and 455 (1913 Ed.).

fifth sub-race and the later sub-races of that Root Race and the law of the rights and obligations arising from individuals competing with one another for material mastery or profit and not co-operating with one another for common purposes would become to a large extent inapplicable. Judges and magistrates, courts of justice and police, as we are familiar with in our civilization to decide disputes, prevent or punish crimes, would become generally unnecessary amongst them.

If the sixth sub-race of the Fifth Root Race were to show the spirit of Brotherhood governing its human relationships, and make our present-day jurisprudence based on conflicting individual rights and obligations inapplicable, the Sixth Root Race would exhibit the same spirit much more thoroughly. But it does not follow that there may not be members of the earlier Root Races and sub-races living contemporaneously with them who have not outgrown their racial levels in evolution to march abreast of these later races. But just as we regard the legal conceptions of the Third Root Race as softened by those of the Fourth, and those of the Fourth in their turn refined by those of the Fifth, similarly the legal concepts of our present Fifth will be profoundly affected by the sense of intuition and brotherhood, characteristics of the sixth sub-race, of which we see indications around us in the synthetic quality of the higher mind influencing the trend of modern legislation and the Socialistic trends of modern Governments in extending their spheres of activity to new fields, as for example, to find work for the unemployed, to give free education to the young, to give pension to the old and the infirm, to relieve people from want and illness and the like. When that sub-race in its turn becomes dominant amongst the nations of humanity and raises its culture and civilization to their zenith in the Continent over which the waves of the Pacific Ocean now sweep, it will have completely coloured or modified by its ideals all the legal legacies of the past. What about the seventh sub-race of the Fifth Root Race which is yet to arise in the Continent now mainly represented by South America in the Western Hemisphere? We may be permitted by way of analogy and correspondence, to picture as a vision the legal concepts and ideals of that age which is still several millenia ahead of us. It will be an age when law will be represented by no law, a kind of spiritual anarchism where every man will be his own lawgiver, and his conscience his own Judge and Chastiser, and there

Sixth Sub-Race

Right is what
accords with
Brotherhood

PROGRESS OF LEGAL CONCEPTIONS RACE AFTER RACE

SERIAL No.	ROOT RACE	DOMINANT PHASE OF CONSCIOUSNESS	SOURCE OF LAW	CHARACTERISTIC VIOLATIONS OF LAW	CHARACTERISTICS OF SANCTIONS OR PENALTIES	CHARACTERISTIC FORMS OF SANCTIONS OR PENALTIES	METHODS OF PROOF	STANDARDS OF RIGHT AND WRONG
1	Second half of Root Race III	Activity impelled by Kāma or desire-nature	(a) Each man is a law unto himself (b) Inhibitions of Totem groups	Offences against person	Hitting back the aggressor indiscriminately without regard to the measure of punishment for the wrong committed	Death, torture, mutilation, scourging or slavery	Eye witnesses or suspicion stirring the impulse to avenge	What succeeds is right.
2	Root Race IV	Kāma-manas or desire-nature with mind obeying its impulse	Usage, custom and tradition of Family, Tribe, or Community	Offences against person and property	Lex Talionis, 'eye for an eye', 'tooth for a tooth'	Also deprivation of property, imprisonment, outlawry, exile, lynching	Eye witnesses, Trial by ordeals, omens, sorcery	Might is Right.
3	Root Race V	3 Stages (a) Lower manas dominant (b) Antah-karna active (c) Higher manas dominating lower	Municipal or National laws by State Edicts or Legislatures; Codification of Law	Offences against person, property or reputation; also offences by, or against, corporations or other incorporeal persons created by law	Punishment to serve as public example or deterrent in aim; to be reformatory or to restrain offender from doing further injury; prevention of crime also aimed at	Also pecuniary damages, Deprivation of political rights	Direct evidence, indirect evidence, including presumptions, inferences, circumstantial evidence, etc.	Rights and obligations maintained with the help of state tribunals.
4	Root Race VI	Buddhi or Intuition dominating manas	International law	Offences against the standard of right and wrong for the Race, set up by the Spiritual Elders	Criminality is due to ignorance	Condemnation by public opinion, as conduct not according with the standard set up by the Spiritual Elders for the Race	Intuition	Right is what accords with Brotherhood while wrong is against it.
5	Root Race VII	Ātmā or Will with Manas and Buddhi harmonized with it	Each man is a law unto himself	Offences against one's own Higher Self	Appeal to Higher Self	Condemnation by Higher Self	Self conviction under the illumination of one's own Ātmā	'Right' is what accords with unity of One Lifewhile 'wrong' is in conflict with it.

Right is what ac-
cords with Unity
of One Life

would be no need for an organized state to control, order, and govern, as is done at present. An anarchist of our day vaguely dreams of the conditions of that distant age without being equipped with that highly evolved moral character, love, altruism, and wisdom which would distinguish his representative in that far off future. This huge disparity makes all the difference between him and his future compeer in that the former is on the whole destructive while the latter would be constructive. Man, when he was endowed with nascent manas in the middle of the Third Root Race, roaming in the primeval forests fighting with the mastodon and the giant saurians and waging war with his fellow men, scarce distinguished from the brute around him and sometimes consorting with the animal creation around him committing the 'sin of the mindless' of which union the present-day anthropoids are said to be the descendants, was an anarchist, the whim and caprice of his infant mind and the impulse of his turbulent desire setting up law for him. The man of the Seventh sub-race and much more perfectly the members of the Sixth and Seventh Root Races who will successively come into existence as one continent after another arises from the bosom of waters after inter-manvantaric pralayas, will be spiritual anarchists with glorious Manasic development, illuminated by Buddhi, over which Ātma will shed its mighty power, knowing no higher authority than the Self to guide Its manifestation on Earth.

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S. D., II, 291.

See also p. 369, Vol. I, this Series and pp. 110-111, this Vol.—ED.

DEMOCRACY IN PRINCIPLE AND PRACTICE

BY N. SRI RAM

SOME GENERAL PRINCIPLES

ALL Government exists for the sake of the governed, and in order to promote their happiness and progress. If it is to fulfil this purpose, it must function with the consent of the governed.

It is the individual who creates and experiences. What takes place is through his activity. Government decides within its limits what shall take place and what not. The values of Government must therefore be the values of the individual. The individual is the centre for the emanation of new ideas, for variation and progress, while Committees, Governments and systems are for conservation and administration, and tend always to stereotype and perpetuate. Hence, whatever order we frame for Government and administration must be a free and not a suppressive order, the freedom of each citizen being limited only by such measures of collective or State planning and control as will ensure the freedom of the others. The good of the individual must be the Government's concern; but what that good is can be discovered only by the individual. Therefore that good, so far as the Government is concerned, must consist in his freedom. The maximum of freedom for the individual is the highest good at which a State can aim.

The freedom that is ensured must be real freedom and not a nominal freedom just guarded by a framework of political order—not freedom merely to struggle, giving the advantage to those who have strength and resources, and leaving the weak at their mercy.

An ideal Government is one which considers the good not only of a majority but of all citizens, and knows the limits of proper Government, that is, does not seek to determine those ways of individual citizens and their natural groupings, which must be left to be determined by themselves in freedom.

We see in these days—at least most of us do—the wrong and injustice of slavery. The principle of justice must be extended further to the logical limit, that law and Government must not be for the exploitation of a minority by the majority, or of the majority by a minority, of race, religion or political persuasion.

FROM AUTOCRACY TO DEMOCRACY

The old autocracies had this merit, that except the autocrat, who held his post hereditarily and did not have to fight for it, all were equal as his subjects. His Majesty, the King of England, is His Majesty to his mother and to his Prime Minister, as well as to the meanest commoner. In the pre-democratic days, within the settled order of a State, each had his place and a certain freedom, which might not have been much, according to democratic standards and the conditions obtaining today, but there was contentment and little contention, except now and then, in the sphere of political affairs. Even when the autocrat was a vicious man, his vicious ways affected but a comparatively small circle around him, and when he led his army to wars, his military adventures were petty affairs compared to wars nowadays.

The autocracies have, however, had their day and passed. With the enlargement of our physical freedom, that is the power to move and communicate with our fellow human beings, a new spirit has arisen, in which is reflected a certain discovery of our fellow-man. We have now a concept, at least in theory, of his essential worth; because with freedom and opportunities we see something of that worth showing itself. We have not yet been able to assess the exact nature of that worth and fix the limits within which it can operate to the best effect.

We have concluded superficially that all are equal in capacity, and the whole of the democratic system is built upon the assumption that one man's judgment on any question is as good as another's, while in point of fact it is not. All are of course equally entitled to "life, liberty and the pursuit of happiness". All must be equal in law where justice has to be done. But the needs of all are not the same, nor their tastes and aptitudes. Thus we have in Democracy the misfits which characterize it. It is not a system for selecting the most suitable men to the places of rule and authority, but a system for promoting a free scramble and contest, bringing all questions into an arena where there is the free play of human passions

whetted by desire for power and emoluments, and placing the man most acceptable to the ignorant multitude in the place of most importance.

THE RULE OF WISDOM

According to Occult Science, which is Theosophy—for there is both the occult and the visible in boundless Nature—Wisdom alone gives the title to rule. The rule of Wisdom is a golden rule which does not love violence and tears. In the old days, according to the epics of India as well as the legends of many other lands, the Kings ruled by Divine right, but their rule was so just and beneficent that Morality thrived everywhere side by side with her twin-sister Happiness. According to the view obtaining in those days, the throne was the fountain-head of all authority, and the source of all blessings as well as evils. The King had total responsibility for the conditions in his kingdom. His autocracy, being hereditarily benevolent, was happily accepted by the people, and it was, on the whole, government with the willing consent and co-operation of the governed.

Kingship in due course, like every other high ideal, fell into abuse and disrepute, and in these days of the so-called equality of all men, we see no reason why the blood of one man should be preferred to that of another.

THE MANY AND THE ONE

In any scheme of government there must be the many and the one. The governed are of course the multitude, and the government, in which there is both direction and authority, has necessarily to be one-pointed and unified, even if it does not represent the absoluteness of a monarch. But in these days the many preponderate, and they determine from time to time not only who is to be the one, but the nature of the unity in the Government and the Constitution. Instead of monarchy, which has fallen from its high estate, we are now seeking to work a multi-archy which is Democracy.

In the old days the citizens were subjects of the King. They were the children of the Ruler-Father and did not have the idea that they needed any political right except protection. The common man today has reached a certain political estate, in most of the States in the world, and feels he has a right to share in the Government. His relation with his Government is totally different from what it used to be.

Every structure and organism must have a certain unity if it is to serve its purpose. Democracy or autocracy, in both there has to be unity, and that unity depends upon the co-operation of the governed and their voluntary consent to the processes of Government. They have to obey the Government, even while criticizing and fighting it by purely political means, and support the Constitution even when they are endeavouring to change it, which must also be by the appointed methods.

To obey an accepted leader is easier than the harmonizing of the separate wills among those who are regarded as basically equals and as constituting jointly the source of all authority; and that is what makes Democracy so difficult to work successfully. But not until this difficult task is achieved can Democracy function well and become stabilized in some suitable form.

GOVERNMENT BY PARTIES

Unfortunately, it is not harmony at which Democracy aims, for it works by sectional organization and by the overbearing of the opposition from one section by another. It is common-sense that unity and agreement in a State are better than disunity and disagreement. But then if there is no disagreement with the Government for the time being and with those who support it, how is the other party, which has the ambition to rule, to make its bid for the necessary popular support? If this other party consists of people whose interests are contrary to those of the dominant party, that is of course a reason for maintaining a political difference. But even if there are no important differences, as is the case at present between the Democrats and the Republicans in the U. S. A., the utmost play is made with differences in execution or in the accents and emphases placed in the enunciation of policy. There *has* to be disagreement between the haves and the have-nots in the political sphere, coincident with the social and economic disagreements, or on some other basis, no matter what. But even within the party there are divisions to be reconciled; though in some matters the parties think it best to act in broad agreement between themselves, as in matters of foreign policy. In such circumstances, which exist more or less all the time in the midst of the party game, there has to be a compromise which is not infrequently unsatisfactory to both. When agreement is necessary, it is usually reached, as between the parties in France who join to form a Government, even if it does not last long. The slow process of bringing about such agreement as is possible is the cause of the dilatoriness with which the democratic

wheels revolve, which in an emergency such as war is put an end to by giving up the democratic process and surrendering all national liberties into the hands of a War-Cabinet or other supreme authority. Normally the democratic process gives rise to a state of chronic discontent and aggravation of the ills for which the quick remedy is not forthcoming.

When the majority party uses its power of numbers, it does not succeed in resisting the temptation to entrench its own interests at the expense of those of the opposite party, the minority for the time being. Reason and right may be with the minority, but it can only plead, argue and threaten; and opposition overborne at legal and parliamentary levels is not less sickening and hurting to tempers than differences laid low with a feat of arms. The strong man who forces a situation which others have to accept is presently accepted by all as their head and leader.

CHAPTER 98 THE SIMMERING SITUATION

A. SIMMERING SITUATION

In the politics of a democratic system, there is no such thing as even temporary finality. The settled facts of Government are the legitimate butt of the opposition. There is always an appeal in process to the fickle-minded populace—fickle-minded necessarily because of its ignorance of the facts of the case, which have all the time to contend with party propaganda, and its essential unconcern with matters transcending its normal range of interests. Hence, conflicts once started are kept simmering until a climax is reached, which brings an end of a sort to the controversy in process but not a situation of peace. New conflicts presently take the place of the old. Up to a point these conflicts, so long as they are confined to the political arena, are exciting and enjoyable. The Liberals and the Conservatives in England did not mind fighting and losing to each other for what they cherished in common; their privileges in society and their economic interests outweighed their points of difference. But that is not the case with the Communists and the other parties on the continent of Europe. When the differences are serious there is a temptation for the party in power to suppress its opponents, and for the latter to use violent and subversive methods to place themselves in power. Self-assertiveness, the challenge of possessions and power, envy of the well-placed, all combine to find an outlet in violence, first by rousing passions, then by fomenting disorder, and lastly by organizing to seize the reins by sheer force.

Democracy requires at least two parties, representing the forces of free play and check—the Government and the Opposition—and, like any biped, it walks alternating between the planted foot and its swinging partner. What pleases the one does not please the other, and to conflict in Parliament is added the turmoil which is created among the electorates.

WHAT IS BASICALLY WRONG

What is basically wrong with the democratic system is the idea that one man's vote is as good as another's; that knowledge, capacity and character are not criteria which can or should be applied in choosing legislators or men for important offices; he who has the necessary popular support is entitled to the office which he claims on that basis.

Is it possible to devise a system or agree upon certain principles that, by their own intrinsic force and co-ordination, can create a body politic with organs that function efficiently and in harmony with one another, a system which will produce not conflict, but co-operation, not discontent but contentment, in which not ignorance but knowledge and capacity will be in a position to decide and administer?

Even if we cannot find the wise man or woman who is to rule, is it not possible to lay down conditions which would work towards an approximation to that ideal? The way in which Democracy is worked today hinges on the idea that each man has the same right to choose his governors as another; therefore all discrimination in the bestowal of the vote is wrong discrimination. Who is to decide a person's fitness for political responsibility? Therefore we must presume all are equally fit. But a man or woman who votes without knowledge of the matters which he thus seeks to decide is essentially an irrelevancy. He either votes with mere prejudice in misunderstanding or with an essential unconcern, which enables others if they can to exploit him and his like. The rough and ready rule of "one man one vote" does not suffice for the complicated situations that arise. It may work well in a limited area where the problems are simple. This need not mean that all except the one man or woman who excels in knowledge, disinterestedness and capacity should cease to have part or lot in the Government. Even if that excellent man can be discovered by some means and accepted as the chief, he would need some men necessarily less excellent than himself to assist him.

GRADING IN ORGAN AND FUNCTIONS

There have to be all grades in administration from the village constable at the bottom to the head of the administration at the top. We need an organization of Government to fit the specialized problems of modern society. We need a political organ suited to the functions it has to perform at every level. Just as administrations vary in extent, problems vary in their intricacy and the number of persons whom they affect. It is not possible to organize efficiently without groupings and grades.

In India, for instance, there are five grades of Administration, each grade embracing an area larger than that of the next lower grade: (1) The Village or Town, (2) The Tāluk, which is a group of Villages, (3) the District, which comprises several Tālucs, (4) the State (Province), which consists of many Districts, and (5) the Central Government, which has authority over all India. Each of these is a distinct sphere of administration: (4) and (5) have Legislatures; (1), (2) and (3) are Local Bodies, which can only exercise authority vested in them by the Legislatures. The matters with which each grade is concerned are of wider extent than those of the preceding, and the problems, involving a greater variety and number of elements, correspondingly more complex and difficult.

When every profession or vocation of importance in the world calls for knowledge and technique or skill, why should administration alone be deemed capable of being dealt with by men who do not need either accurate knowledge of its problems, or the ability to use good judgment on the facts involved in them? At present, so long as a man has the necessary support of his fellow-men, by whatever means this support may be acquired, he is considered fit to occupy the position he covets from which to legislate or administer. In a large majority of cases the position is coveted not for the good he can do to his fellow-men, but for the power he can wield over them, and the benefits he can enjoy personally through the holding of that position or office.

It is difficult to determine or change the motives of persons. To some extent we can foster the good tendencies of human beings through the right kind of education. But we can minimize the scope afforded for the play of self-regarding and personal motives by the acceptance of the idea that right and position mean responsibility and require to be earned by giving proofs of the requisite knowledge, capacity and service. This principle must be insisted upon in an increasing degree to earn the right

of voting and to qualify for a seat in the Legislative or local Council. In the lowest grade of the Village, every adult may have a vote without any qualifications, as the questions dealt with in the village sphere are simple and local. But without graded franchises as we go further up, and the fitting of the organ to the function, there will be neither good government nor the conditions needed to realize that individual responsibility on which Democracy is theoretically based.

RESPONSIBILITY MUST BE REAL

The grading of the franchise and even more the qualifications for membership of the various representative bodies should be according to education, capacity, experience and service already rendered in a humbler sphere. Such a democracy would be sufficiently regimented both regionally and according to the class of problems to be dealt with, to make responsibility for each in his sphere a real thing, because of the understanding of the problems presented to him and the general qualifications he has for dealing with them.

There has to be scope in a truly democratic State for the cultivation and useful employment of the talents of each individual, but these talents cannot all find scope in politics or administration. It is the duty of the State to create or encourage the creation of the needed opportunities. Politics and administration are a field of specialized activity, in which though the mainspring has to be the common or popular will, the actual wheels must represent the activity of those carefully chosen for their functions in that field and co-ordinated properly to turn together without deadlock or friction. Democratic Government will cease to be Government by factions and possess both the necessary unity and efficiency only when the system is so constructed as to make responsibility a practical reality to the citizen and by placing the power in the hands of those who may be trusted to use it in the general interest.

To create a unity out of the diversity of wills which a democratic State constitutes, to grade those wills in a system where the will of each will operate within the range of his knowledge and capacity, and so construct the system that in the grouping of those wills, wisdom will come to the top and have a chance of ordering all things mightily, with the might of the eager co-operation of all, and sweetly, with the sweetness of freedom for each, is the difficult task set for Democracy. But as yet the task has not even been envisaged.

THE GOVERNMENT OF THE WORLD

BY PETER FREEMAN

PREFACE

"Government exists for the Good of the Governed".

PYTHAGORAS

"Of all the arts, that of Government is the greatest open to man".

ARISTOTLE

"Force without Justice is a tyranny but Justice without force is impotent".

PASCAL

"It will be just as easy for Nations to get along in a Republic of the World as it is to get along in the Republic of the United States".

PRESIDENT TRUMAN

WORLD PEACE

"The organisation of world peace, so that wars will be impossible and disarmament secure, involves some sort of federal authority in the world's affairs. On some point there must be the certainty of a decision upon all disputes of races and peoples and nations that would otherwise necessitate war. And this authority must clearly have the power to enforce its decisions. Whatever navies and armies survive, other than police forces for local and definite ends, must be under the control of this central authority. It may be a committee of national representatives or what you will, but central authority there must be. Pax Mundi, like the Pax Romana or the Pax Britannica, must be the only sovereign power within its realm. If you are not prepared to see your own country and

your own flag so far subordinated to collective control, whatever protestations of peaceful intentions you make are either made unintelligently or else in bad faith. Your country cannot be both independent and restricted. Either you are for Cosmopolis or you are for war".

H. G. WELLS

THE POWER OF BROTHERHOOD

Do you know who are the greatest enemies of a State? The weak, injured by the strong. For, above all States, rules an Eternal Justice: and the tears of miserable women, and the curses of angry, starving men, sap the foundations of a State that denies Brotherhood, and reach the ears of that Eternal Justice by which alone States live, and Nations continue. It is written in an ancient scripture that a Master of Duty said to a King: "Beware the tears of the weak, for they sap the thrones of Kings". Strength may threaten: weakness undermines. Strength may stand up to fight: weakness cuts away the ground on which the fighters are standing. And the message of Thaosophy to the modern political world is: Think less about your outer laws, and more about the lives of the people who have to live under those laws. Remember that government can only live when the people are happy; that States can only flourish where the masses of the population are contented; that all that makes life enjoyable is the right of the lowest and the poorest; that they can do without external happiness far less than you, who have so many means of inner satisfaction, of enjoyment, by the culture that you possess and that they lack. If there is not money enough for everything, spend your money in making happier, healthier, purer, more educated, the lives of the poor; then a happy nation will be an imperial nation; for Brotherhood is the strongest force on earth.¹ (Italics ours).

¹ A Lecture delivered in London in 1907 by Dr. Annie Besant.

GOVERNMENT

THE PLAN OF LIFE

THERE is a "Plan of Life", a well-conceived, comprehensive, all-inclusive scheme of evolution whereby all forms of life are developing towards a glorious ideal. Scientific teaching indicates that that intrinsic life unfolds, as the acorn into the oak, until it reaches the fullness of its possibilities. The form or expression changes in response to the ever growing life, showing ever more wonderful kaleidoscopic variety in colour, shape and size, though fundamentally composed of the same atoms or molecules whatever temporary appearance they may assume.

This general scheme applies to minerals, plants, animals, men, nations and planets. Therefore, once having understood "the Plan", it is possible to watch its working out in the destinies of mankind; in the growth, fruition, decline and fall of nations and empires, in political struggles, in national rivalries, and in the gradual civilization and progress of Humanity towards its destined end—the full realization of Universal Brotherhood.

By intelligent appreciation and understanding, men and women can co-operate with "the Plan" in its more immediate, as well as in (working towards) its ultimate fulfilment.

It is further claimed by theosophical teaching that this vast scheme is being watched and assisted by a body of super-men, the Masters—Those who, having passed through the many stages of life, are now competent to help and guide the affairs of this earth—much in the same way as parents watch and guide their growing children, or statesmen assist in the development of their country. These evolved men are known as the Great White Brotherhood, or the Inner Government of the World. All forms of government on earth are but pale reflections of Their activities; nevertheless everyone can assist, in however humble a manner, in Their mighty task of bringing about the perfection of all life.

Mankind is left free, subject to the Law of Karma, to organize and plan its own development and government. The numerous methods

and forms indicate the many experiments that Humanity has attempted and is attempting. Human beings are not all evolving along the same line, but are as varied as the plants and animals, and many lines of evolution are seen working themselves out. This is the reason for the various Religions of the world, the great Civilizations of history, and the Empires that have been born. Nations throughout the world, even Countries, Towns and Villages, all play their special part and have their own peculiar and unique function in serving this vast evolving plan for the perfection of humanity.

In this scheme of evolution there are certain fundamental laws of life, like gravitation, which apply everywhere and under all conditions. These laws are in operation on all planes of life—physical, emotional, mental and spiritual. Brotherhood, Reincarnation, Karma, Periodicity, Correspondences are among the main examples—simple in principle but universal in application.

THE EVOLUTION OF POLITICAL INSTITUTIONS

There is a Plan behind political evolution. If we look at the evolution of the Political Institutions we find that their successive appearance on the world stage has corresponded with the attainment of newer and newer levels of consciousness by Humanity. In fact, from these Political Institutions we can study the gradual unfoldment of human consciousness.

If we look at various types of Governments that have appeared in the world, we find the following sequence: To begin with, we have Patriarchic Governments with the basis of a Family State in which the Elders of Humanity rule in the interests of infant Humanity. Then we have Feudalistic or Autocratic Governments in which the strong and powerful overlord establishes his rule over the people which later on develops into a Hereditary Monarchy where absolute loyalty to the person of the ruler is demanded. Then we find the emergence of Plutocratic Governments in which property controls the state machinery. We find it today in the majority of certain Democratic Governments in which the representatives of the people direct the state policies. When Democracy is able to evolve a system by which the wise and the capable are elected to positions of power and authority then shall we see the dawn of true Aristocracy in the world. And then finally will come the stage of Theocracy

in which the Divine Kings, the Men made Perfect, will guide and rule Humanity in perfect accord with the needs of the Great Plan.

All political changes perceptible in the world age after age are but unfoldments and, at the same time, the fulfilment of one single Plan in which Humanity is being slowly but steadily guided to its natural consummation of Universal Brotherhood. Hence the value of understanding the scheme of evolution and the laws of life which are mere expressions of that scheme.

STATECRAFT

It is the purpose of the Politician and the Statesman with a knowledge of these Laws of Life, understanding the stage of evolution reached and appreciating the circumstances of the situation, to apply them for the helping of those concerned, at the most opportune time and in the most satisfactory manner.

This general outline and ideal, necessarily curtailed, shows something of the purpose of each Nation, its relation to the other Nations of the world and the object of the special form of Government adopted.

Theosophy does *not* therefore conceive that the fundamental purpose of each Nation is to entrench and organize itself so as to secure the greatest possible benefit for its patriots alone, to arm and fortify itself so that it may be strong enough to resist attack,—or to be able to attack another Nation or to combine with another Nation or group of Nations for the ultimate object of the subdual of peoples or the acquirement of territory.

On the contrary, Theosophy conceives of each Nation as an organized unit of Humanity with the special purpose of giving particular emphasis to certain special characteristics in the people of that Nation, which shall be a contribution to the welfare of the world as a whole.

Once this is understood, one sees the splendid and unique contributions that have been made by great civilizations in the past, namely, Egypt with its special contribution of Science, India of Spirituality, Greece of Beauty, Rome of Law, etc., each having helped the world to make immense strides in these directions.

One can also see the value of the various Races, Religions, Languages, Laws, Customs and Traditions that characterize Nations today, each one offering its special keynote, its peculiar teaching, its unique outlook to the whole.

Humanity has also struggled to establish those Human Rights, which "enable each one to develop to the full all the powers which he brought with him into the world"—"Life, Liberty and the Pursuit of Happiness", "Liberté, Egalité, Fraternité", "Government of the People, for the People, by the People" as they are characteristically expressed in the basis of the Constitutions of America, France and England. Rights of Free Thought, Speech and Meeting, a Fair Trial, Religious Freedom, Economic Maintenance, Education, and the special Rights of Women and Children have all been gradually appreciated and established, though of course, even yet only to a very limited extent.

THE MENACE OF WAR

Can anyone be indifferent to the fact that in all the 290 great National Wars in which Europe has been engaged in the last three centuries, or the 8,000 Wars in modern civilisation, as given by the United Nations Organisation not *one* of them has proved who was right and who was wrong? It is doubtful if, in any case, either victor or vanquished has been better off as a result, and the terrible loss of life and property is beyond calculation.

Yet the ingenuity of human beings has overcome other great world problems. Mankind has abolished cannibalism and slavery, human torture no longer exists, actual starvation is rare, even epidemics are now under control and greatly minimised—yet War, the greatest menace to humanity, still remains.

No impartial observer of world affairs could fail to realize that there must be deep and fundamental causes of such a menace, and that while political and constitutional factors may minimize the disaster and, of course, will be necessary in the application of the measures to secure World Peace, these alone will **never** be sufficient to establish it on a firm and sure basis for all mankind, for all time and under all circumstances.

WHAT IS THE CAUSE OF WAR?

What are the causes and what are the possible remedies for the present situation?

Fundamentally, there can, of course, be no other than Karmic Causes which have led up to the present impasse and all previous international disputes. Until these causes are changed, their inimical results must continue.

Briefly, these are initiated by wrong, selfish or cruel thoughts and actions. For example:

(1) The idea that one nation is better than or superior to another. Patriotism has been abnormally glorified. National pride has been associated with superiority of arms, and countries have permitted themselves to be exploited to effect victory on the battlefield. The ideas of revenge for national honour must be changed for countries as it has been in personal relationships. Nations, like individuals, must learn the value of co-operation and brotherhood if they would live in peace.

(2) The struggle to gain security of the necessities of life has permitted a pernicious system of capitalism to develop where the more powerful exploit the weaker. Finance is made the catspaw of vested interests. The stranglehold of monopoly in land, money and other essentials has become the basis of our industrial system. The mass of the population are thus kept in relative poverty and starvation while there is an enormous potential surplus of every kind of necessity. This struggle inevitably leads to jealousy and enmity between individuals, classes and nations.

(3) The superstition that man needs the flesh of animals for food, and the resulting indifference and cruelty perpetrated on millions of helpless creatures. Possibly as an indirect result there has grown up the common conviction that animals exist for man's sole use and purpose. Mankind has permitted the most horrible tortures and crimes in the name of science, sport and necessity by such things as vivisection, hunting, fishing, the wearing of furs and the eating of flesh, which have become normal habits and customs of the day. Such cruelty must inevitably re-act on the people concerned, involving the suffering which war brings. This is possibly the greatest single factor in the cause of war. (See Appendix G.)

(4) The failure of mankind to establish any kind of international law and order. No Government is worse than bad government. Where you have bad government this can be changed; as evil or undesirable events show themselves, laws can be improved, personalities constantly altered, and gradual improvements effected. But where you have NO Government-chaos-misunderstanding-bloodshed and warfare are inevitable.

The establishment of a World Government alone can eventually end War and bring Peace to all Mankind by the recognition of the Brotherhood of Humanity.

BRIEF OUTLINE OF A PROPOSED CHARTER OF BROTHERHOOD AND HUMAN RIGHTS

Belief in the principle of Human Brotherhood, as an ideal for all men and women the world over, is so universally held by enlightened people that its principles can now be crystallised in a charter of Human Rights and Duties. In the past the ideal of Brotherhood has been mainly advocated for application by individual men and women in their personal and social relationships.

On account of the rapid development of modern transport and communication, with its effect upon commerce and industry, the organization of which now tends to transcend the limitations of national boundaries, and on account of the international character of financial transactions, which have an effect upon a continental and world-wide scale, the Nations of the World are now becoming integrated into a single world-wide Civilisation. Intellectual culture now traverses all national boundaries, and is another factor in this integration. The Press, the Wireless, the Cinema, the Aeroplane have added to the means of international communication.

In spite of this modern development, the principle of Brotherhood has received little attention in its practical application. No common standard throughout the world in this respect has hitherto been recognized. Perhaps it is because of this lack, that international and economic difficulties arise. The Declaration of Human Freedoms which follows, is the first popular attempt to formulate such a basic standard.

A CHARTER OF HUMAN RIGHTS

These factors have now been recognized and for the first time in history, a Charter has been drawn up (by the Social Committee of the United Nations) and accepted unanimously as the basis of those rights and duties.

While we do not accept the basis of *Equality* which is unduly emphasized, the value of the recognition of a Common standard for all Mankind is one of the most important factors in human progress. Even if these have to be amended, as undoubtedly they will, the first step has been taken, the Family of the World recognized as a reality and Human Brotherhood as the only standard of our relationship to all other human beings.

The principal objection—to which many may take exception—is NOT in the idea of equality of status, of race, colour and language, which can easily be accepted, but in the basis of religion and politics. Here men are NOT equal—here men are very different—and as they progress in civilisation, men become more and more different. At the stage of the savage, there may be a common equality,—little removed from animals, but as they progress towards greater culture, refinement and understanding, man becomes more and more different from his fellow men, until we reach the stage of the genius, when he is utterly different from any other genius.

There is no comparison between Shakespeare and Wagner, between Michael Angelo and Joan of Arc, between Pythagoras and Newton ; each is an outstanding personality, with a special and peculiar uniqueness.

THE CHARTER OF HUMAN FREEDOMS

The following are the chief points outlined, and accepted by the United Nations in 1949.

- (1) All men are equal, irrespective of race, colour, language, religion or politics.
- (2) No man should be subjected to arbitrary arrest, detention or exile, nor subjected to torture, inhuman treatment or punishment.
- (3) All men have the right to freedom of movement and residence within the borders of each State and the right to seek and to enjoy in other countries asylum from persecution.
- (4) Men and women of full age have the right to marry without limitations of race, nationality or religion.
- (5) Children born out of wedlock should enjoy the same social protection as those born in marriage.
- (6) All men have the right to work, with equal pay for equal work, to free choice of employment under just and favourable conditions and to have protection against unemployment.
- (7) (The Charter emphasizes) the right of free speech, peaceful assembly and religious freedom.

BROTHERHOOD AND PERSONAL DUTIES

Because Rights and freedoms can only be maintained by the fulfilment of Duties or similar conditions the following should be emphasized wherever they become operative.

1. Every individual shall comply with the laws of the country in which he is for the time being resident, and shall exercise his rights only in such a manner as will preserve the corresponding rights of others and in accordance with the prevailing standards of courtesy and decency.
2. The right to freedom of expression of opinion shall not permit incitation to any act contrary to the Laws for the time being in force, but will permit advocacy of change in such Laws.
3. The right of religious freedom shall only be exercised for human progress, and shall not confer any permission for cruelty, animal or other sacrifice or the use of any insidious form of mental influence.
4. The right of freedom to trade shall not prevent any community or nation making laws for the prohibition or regulation of trade in specified articles, and traders shall be free to trade only within such limitations.
5. The right of determination of the form and personnel of the Government implies no criticism or recommendation of any particular form of government or any particular class of individuals. Each individual shall exercise his right of political self-determination only in his own country and in conjunction with all his fellow-citizens.

WORLD GOVERNMENT

Only as these Rights and Duties are not only recognized but put into effective operation by all Nations, can a World Government emerge. We need not wait until we accept them fully—or every Nation is legislating for every detail. But there must obviously be a substantial majority of the World's population who are actually living accordingly before World Government can be made a reality.

Nevertheless, much is being done and still more can be done by a body such as the United Nations, to begin to prepare for this new world idea and basis of World Government which would eventually be established and to which all countries, with all their laws, functions and activities would be subordinate.

Each country would, of course, continue to exercise those national powers that make for the development, progress and prosperity of their

own citizens as at present, but they would do so only if they did not conflict with the rights and privileges of other nations, and if they conformed to the general basis of human rights of all citizens of the world which it would be the special function of the World Authority to guarantee.

There would be, as at present, a national government for each country, but all such governments would be co-ordinated, synthesized and correlated by the impartial World Authority. Matters of disagreement would be settled by an International Court of Justice, such as is already in being at the Hague. (p. 467)

THE FORMATION OF A WORLD STATE

These proposals would therefore lead to the formation of a World State, safeguarding the rights and interests of its component nations and countries as the final goal of the Government of the World.

Its responsibilities would not be limited to merely settling international disputes and protecting weaker nations but would include the fostering and civilisation of all that is best in human life, encouraging the new departments of human activity and co-ordinating all human affairs in Universal Brotherhood.

THE UNITED NATIONS OF EUROPE

To this end the desirability of the immediate formation of a "United Nations of Europe" would appear evident.

At present, there is no machinery for considering the peculiar problems of the various countries and creating the unity and harmony so essential for the prosperity and happiness of large numbers of peoples so closely associated, yet speaking different languages.

Such matters as Territorial Boundaries, Customs and Excise, Trade and Commercial Facilities, International Travel, Communications—Postal and Wireless, would come under this central body subject only to approval by the World Authority, whose decisions would be final.

Considering the terrible poverty, ignorance and lack of culture and opportunity which has characterised Russia for many centuries, it is undoubtedly making more rapid progress to-day, though it has still far to go to secure anything like the comparable social and economic position of most other European countries.

RUSSIA

Unfortunately, the U.S.S.R. have so far refused participation in these matters, and do not appear to be sympathetic towards a United Europe.

Having developed a political system of Communism, it is, of course, difficult for her to co-operate with national democracies. Nevertheless, economic pressure and other factors may encourage her to adopt a more conciliatory action in this direction. In any event, trade and business activities are powerful factors and the exchange of goods and commodities is an efficient means of establishing good will. Russia has a huge surplus of natural resources and food. She is as eager to send these to the rest of Europe as they are to send her the machines and manufactures which they can produce in vast quantities.

When the more immediate problems arising out of the last War—such as the future of Germany, Administration of Austria, Control of the Rhine, and the Chinese situation—have been decided, Russia may be more willing to see the advantages of effective co-operation for mutual prosperity.

COMMUNISM

But at present the system of Communism has rapidly become a new and powerful force in the world.

Two new factors arise from this system which have *not* hitherto affected national affairs.

The first is that Communism continues beyond national boundaries of residence and Communists are found all over the world, irrespective of nationality. Indeed, they are prepared to surrender their nationality for this new conception. This has given it a power through infiltration which has hitherto been unknown in national matters.

The second is that Communism has become powerful, mainly because it is composed of those with grievances which they have never been able to express effectively hitherto or secure adequate representation in previous history. The poor, the suffering and the ignorant, in the past, have mainly continued in their poverty. They have been the "slaves" of every previous civilisation. Egypt, Greece, Rome, Babylon—all had a system of slavery as their basis. They had no voice in public affairs and were little removed in status from domestic animals in the participation of civic and national life.

With the growth of the knowledge and power of Organisation and Co-operation, which has characterised modern civilisation, this advantage has been well used in the growth of Business Concerns, Trade Unions, Co-operative Societies, and even the Nationalisation of whole industries has been a characteristic of many democratic countries. This enormous power has been effectively harnessed by the system of Communism—partly as a re-action from the Tzarist regime and partly because of the terrible suffering through which Russia passed in the two World Wars.

THE COMMONWEALTH OF NATIONS

This miniature world scheme has already accomplished much and has shown some of the advantages of mutual co-operation and respect. There has gradually developed a friendship, appreciation and understanding between the Members of the Commonwealth which would appear to have made a permanent peace between them.

During the last few years, complete independence and national responsibility have been secured by Egypt, India, Pakistan, Burma, Ceylon, and many Colonies have been granted a greater measure of democratic government with a view to complete responsibility in due course.

These greater measures of freedom have resulted in strengthening the ties of affection and co-operation. The word "British" has now been discontinued so that no member of it will feel that Great Britain has any dominating authority over its activities and will only use her influence for the benefit of the whole of the members of the Commonwealth.

Even H. M. the King is no longer Emperor of India—but any loss of prestige in this respect has been more than counter-balanced by the greater affection in which the Royal Family is held—as witness the recent Royal Tour to South Africa, and the one contemplated to Australia and New Zealand.

DEMOCRATIC GOVERNMENT

In a majority of other countries, Democracy in some form or other still holds sway. But Democracy inevitably advances with rather slow movements and there has therefore grown up a tendency to decry its advantages while still desiring its privileges of freedom.

The system of Fascism or Nazism practised by Mussolini and Hitler which savoured much of dictatorship, has naturally completely lost favour throughout the world, although in Spain, Franco has succeeded in maintaining his position for many years, and the Country is making slow progress in social advancement. Democracy is favoured practically by every European State other than the Russian Satellite countries.

WHAT ARE THE ALTERNATIVES ?

Without Democracy, until we have reached a state where true aristocracy (government by the wise) rules, there seems no choice except some form of dictatorship, and the peoples of most countries would probably prefer to maintain their liberty of choice and action rather than submit to such a form of government at present.

Under Democracy, the party system is essential and inevitable, voters naturally dividing themselves up, on the one hand, into those who are, in the main, content with things as they are, and who while willing to accept slow and small changes wish to maintain present advantages, and on the other hand, into those who want to make more rapid progress, those who want to improve quickly and who are not so afraid of changes and development, and seeing the great poverty, limitations and other difficulties are eager to bring about a better social and economic order. The Conservative or National Party in Great Britain is typical of the first group, and the second group is illustrated by the British Liberal Party and more definitely in recent years by the Labour and Socialist Party.

Both claim to be animated by a desire for the welfare of the Nation, but they have different methods. Surely it is better for these alternatives to be discussed, argued and settled across a table or on the floor of the House of Commons under a "Party system" than to have them settled by some form of coercion, force or civil war. That there are and must be many different opinions is obvious, and if opportunity is not provided for their expression constitutionally *by party politics*, then they can only find expression by some kind of force which is likely to lead eventually to actual warfare. Those who argue *against* Party Politics should bear these facts in mind.

The actual names that are used do not affect the situation—Conservative, National, Liberal, Socialist, Church, Fascist, Farmer or Communist. The choice is between some form of Dictatorship when Parties are

abolished and freedom of thought and speech are practically denied, or, if freedom is claimed, a system of Party Politics, whereby alternative methods may be discussed.

That Democracy must learn to choose its leaders more wisely, and when chosen trust them more, is desirable if Democracy is to fully succeed, but this depends on the evolution of the Community as well as on the existence of great Leaders.

Meanwhile, few would deny that under the system of Democracy probably greater progress has been made in the world, and civilisation has advanced more rapidly, than under any other form of Government in any corresponding period of known history. Where it has not been fully granted, as in India until 1947, and until recent years in Russia, progress has been less marked.

Under Democracy, to mention but a few of the more obvious advantages, scientific knowledge has made immense strides, education has been secured for practically every child, local government has provided incredible social amenities for all citizens, women have obtained equal rights and privileges, facilities for world transit, travel and commerce are universal—a United Nations, if not fully established, has been started with the object of securing World Peace. Under what other system could greater progress have been made?

While improved detailed methods may be found, it seems likely that the basic system of Democracy will continue for many centuries in the majority of the Nations of the world, and that it will be a means whereby Nations can combine together to establish Peace on earth.

THE GRADED FRANCHISE

If the basic system of Democracy is the best form of Government and if we wish to put it on a solid foundation then we should see that it is stripped of its weak points. Democracies are put to a severe test today. Democracies, as they are constituted at the present day, are found to be weak and vacillating particularly in times of emergency. Modern democratic governments must evolve some *machinery* by which they can provide for really strong, purposeful and dynamic executives. Another factor that has contributed very largely to the failure of democracy is that economic democracy has not accompanied political democracy. Right to vote must exist side by side with right to maintenance. Otherwise,

whosoever has money and facility of speech can snatch positions of power by duping the poor ignorant electorate. Some modern democracies have so far failed to place in positions of power and authority those who are wise, experienced and competent. Unless, therefore, modern democracy is able to evolve some *system* by which the wisest of the land are placed in responsible positions, it is sure to fail and fail miserably too.

The scheme of the Graded Franchise put forward by Dr. Besant, if adopted, would save modern Democracy from the glaring deficiencies pointed out above and again place the state on a real solid democratic foundation where people can actively participate in governmental functions and where they can exercise their political franchise with knowledge and understanding.

DR. BESANT'S SCHEME

Her scheme was that in the lowest unit of government there should be universal adult franchise. But as we ascend in units of government, the franchise must become narrower. But this narrowing of franchise should not be on the basis of property but on educational qualifications and on experience. Those only who have served in the lower unit must be allowed to assume power and authority in the higher so that in the supreme National Assembly we have people who have served in lower units of government and are elected by the votes of those only who understand the problems that the National Assembly will have to tackle. Taking the specific case of India, this principle will work as follows :

The village being the lowest unit of government, all adults will have a right to vote and all the village voters will be eligible to stand as candidates for seats in the Village Panchayat (Council). The village Panchayat will have large powers so that it can look after the welfare of all the people in the village.

The next higher unit will be the Taluk, consisting of a group of villages. A minimum educational qualification will be necessary for one desiring to enjoy franchise in this unit. And people who have had experience of working in Village Panchayats will alone be eligible to sit in the Taluk Samitis (Committees).

Similar to the Taluk will be the City Corporation co-ordinating the working of Ward Committees in its area with a higher franchise qualification and only those who have had experience of working in Ward committees will be eligible to sit on the City Corporation Council.

Then the next higher unit is the District with higher franchise qualifications and greater requirements from candidates sitting on District Boards.

Then comes the Provincial Council, then the National Assembly and then the Commonwealth Parliament with higher and higher franchise qualifications and greater and greater requirements from candidates.

In this way the whole State becomes like a Pyramid, broad-based on the village and narrowing as it ascends. This system will ensure the election of competent and self-less people and will also enable the electorate to cast their votes with knowledge and understanding. Each unit will be given a very large amount of autonomy so that every citizen will feel that he has a full say in the affairs of the government. He will feel that he is an important unit in the Responsible Government prevailing in the country. This system will foster active citizenship and thus will enable all citizens to take a living interest in the affairs of the State.

This is a unique contribution of Dr. Besant to World Politics and if the political thinkers of the world will give their serious consideration to this proposal, they will be able to find solutions to many of the problems with which modern democracies are faced.

SAFEGUARDING OF MINORITIES

The scheme given above will also solve the problem of the safeguarding of minorities. The growing practice of consulting the Opposition on matters of national importance, as is always done in Great Britain, is an additional advantage in securing unity and harmony in a nation and is to be encouraged in every possible way. Government by agreement and co-operation of all interests may gradually be achieved by such means and the varied desires and idiosyncrasies of all people adequately protected.

In the House of Commons the Government even now provide for a salary for the Leader of the Opposition in their National Budget, a happy omen of wise co-operation.

THE BENEFITS OF INVENTIONS, DISCOVERIES, KNOWLEDGE AND NATURAL RESOURCES SHOULD BE MADE AVAILABLE FOR ALL MANKIND

At present so many of the results of human research and invention take the form of monopolies, patents, copyrights, and Combines often

controlled by soul-less Trusts and either restricted to the privileged few or allowed to filter through to the ordinary citizen at a heavy cost in some form of exploitation.

The benefits of the Radio, Cinemas, Newspapers, Motor Cars, although not free, are available for most, and indicate the benefits that would and should be provided for everyone when all such things are produced for the good of the whole community.

In towns and countries, through Local Government, great steps have been taken to secure the greatest benefits for the largest number. Education, Public Parks, Libraries, Museums, Hospitals, Public Health Departments, Roads, Water, Gas, Electric Supply, Buses, Trams, Restaurants and a hundred other social amenities all stand as monuments of social service and tributes to the work done and the benefits secured for many citizens by this system in most of the countries of the world.

These are but a few of the still greater benefits which would accrue, if the world's wealth—in its many forms—was made available for all who need it. This change of system would involve real suffering to none, and it can best be brought about by the willing sacrifice of the few, those who hold or control it, in service to the millions who starve from the lack of it.

If not so made available the justifiable claim of the masses to participation and control will be demanded and obtained in course of time in spite of any resistance.

Until each nation controls and organizes the necessities of life—the lack of which causes poverty and starvation—exploitation by the few will continue.

For example,—there is no reason why all such necessities should not be made a national responsibility and organized for the benefit of all the inhabitants of each country. We have already accomplished this in the Water Supply in nearly every part of the world, and man's most precious 'need' is available for all either without cost or at a very nominal charge. The Army, Navy, Education, Roads, Libraries, Post Office, etc., are similarly under public control in most countries.

If it can be done in the case of our Water Supply and these other great National Services, man's ingenuity and organising ability could soon accomplish it for other things as well. Lack of popular recognition and demand is the principal obstacle.

NATIONALISATION

Great Britain has taken a strong stand in this direction and has nationalised her *Coal Industry* (together with all forms of Fuel, Electricity and Gas for Heat, Light and Power), the whole of the *Transport System*—(including all Railways, internal Shipping and Canals, Docks and Harbours, and Road Transport), *Civil Aviation* (both local and international, although private companies are temporarily granted licences to operate under certain conditions); *National Insurance* against Unemployment, Sickness, Disease, Accidents, Old Age and Funeral Expenses, for Widows and Orphans, Dependents, Training, Married Women, and Family Allowances; *Complete Control of Finance* and the Bank of England. *The Health Administration*—including Doctors, Dentists and Occulists, Hospitals, Nursing Institutions, and all ancillary activities. Everyone has the whole of these Services Free, irrespective of age, sex, position, or nationality. *The Iron and Steel Industry* follows, and all its essential activities will be under the direct control of the State before the end of the present Parliament.

THE ABOLITION OF POVERTY

For the first time in human history, we see concerted efforts being made to feed every man, woman and child throughout the world. That there is a great shortage of food is inevitable, especially after the colossal cost and destruction of two world Wars and the fact that previously half the World's population were permanently underfed and on the verge of starvation. The Food and Agriculture Organisation of the United Nations (F. A. O.) have now taken the matter in hand, have made a complete survey of the World's needs and resources, and strenuous attempts are being made to secure, at any rate, a minimum supply to everyone, allocating supplies to those Countries where it is most needed. Every country is therefore having to be rationed and this is likely to continue for many years until the supply equals the demand.

This should be the first step towards the abolition of poverty. But many other necessities must be similarly produced and organised if people are going to have the security and comfort to which everyone is entitled in a world where there is no fundamental shortage of any necessity and where there is a race of men and women whose outstanding characteristic is the power to organize.

THE ABOLITION OF DISEASE

We have already gone far in the abolition of Disease, and many scourges which have threatened nations and civilizations in the past are now under control, if not eradicated.

Medical science, however, while making immense strides in some directions, such as surgery, has been giving its attention too much to dealing with effects and too little to getting rid of the causes of disease, so that today the medical profession spends so much of its time in futile experiments on animals and in doping with pills, lotions, and injections that it hardly knows the factors which, if followed, will *maintain* good health.

It is much to the credit of the British Association that it is now giving more attention to the solution of such practical human problems and less to mere academic discussion of such matters.

When more is known of diet and hygiene, and the useless cruel experiments on living animals by vivisection and certain unorthodox aspects of healing such as osteopathy and herbal treatment by those who have not made a sufficient study of these methods are abandoned, and advantage taken of many forms of psychological, mental and spiritual healing, the medical profession will make greater progress in the provision of good health for all.

It is also an anomaly that generally doctors are paid in proportion to ill-health, and the more disease and illness there is, the larger incomes they receive. While no one would suggest that the medical profession takes advantage of such a position, a powerful motive for finding the best way for gaining and maintaining good health is thereby lost. Gr. Britain has taken the initiative in altering this system and has brought the whole of these benefits under one scheme of a National Health Service.

THE ABOLITION OF PUNISHMENT

This matter is probably more controversial, but if examined impartially, it will be found to be most reasonable and necessary.

For the criminal is generally the victim of circumstances, caused by his upbringing, lack of education and training, ill-health or bad environment. Punishment in any form does little to help him to become a useful citizen and not a burden to the community.

He may have to be restrained and controlled, and this may cause him suffering, but punishment will not be inflicted with that object. The only justifiable attitude is that of giving the helpless victim every

encouragement to overcome his weakness. Certainly, corporal punishment in any form for small children, often inflicting fears and torments which last through life, should be entirely abolished forthwith, or has already been done in many Countries.

Capital punishment especially does nothing to solve the problem, and is only a way the community has of taking vengeance on the victims of our present social system, practising the very crime it has itself condemned.

When we realize that the criminal is only a backward or unevolved Soul, needing *special* care and attention—more sympathy and understanding, we shall discover the necessary means of bringing him into line with civilized society without the cruel and useless torture of imprisonment or punishment with all its expense and brutality.

THE ABOLITION OF USELESS CRUELTY

The wholesale slaughter of Animals, and other forms of exploitation, for human purposes and consumption, is probably amongst the greatest crimes for which Humanity is answerable at the present time. (See Appendix G.)

The unnatural conditions of living and feeding, the forced breeding—many by artificial insemination—the handling and transport, the cruel methods of capture and destruction with little or no regard to the welfare of the Animals concerned, constitute a colossal holocaust of brutality and selfishness, for which there is no necessity and little justification, but for which Human Beings are mainly responsible.

Such indifference to the welfare of these other creatures which also have a claim to life, for which the Universe also exists, and for whom the Human Race are the natural Guardians, must inculcate an attitude of cruelty which is the basic cause of War—War cannot cease until this daily warfare on "Man's Younger Brothers", as many like to think of them, has also ceased.

It will be one of the heaviest tasks of a World Government to tackle this problem.

WHAT WILL BE THE FUTURE OF GOVERNMENT?

Placing our firm trust in the idea of the fundamental Unity of Mankind,—a World State, a World Parliament, and an International

Court of Justice—what are the practical ideals for the future of Civilisation?

While leaving great freedom for the individual development and Government of each Nation, none will be allowed to menace the Peace of the World—and any that attempt to do so will be held in check by an International Police Force.

Laws will cease to be rigid rules—less red-tape and less authority will be required when they are based on common justice to all and not on maintaining the privileges of the few. As the necessities of life are provided in ample abundance, the intense selfish struggle for life and all its exploitation will give place to mutual service and co-operation.

Government by the wise as against the selected representatives of conflicting interests will be the means by which this will be accomplished and developed.

While Democracy will be maintained it will gradually be co-ordinated with an accepted aristocracy.

Politics will no longer be the catpaw of those in power and influence with a glib tongue or a long purse, but like every other department of Science, only those who undertake efficient training to qualify them for Service, will be allowed to occupy positions of responsibility in Government.

No one is allowed to practise in medicine until he has been through the necessary training, so he who desires to heal a Nation of its sufferings should have practical experience of its problems and a knowledge of the right remedies.

Probably this can best be gained by the experience of local politics in village and town, by a knowledge of the work of Councils and Provinces aided by some practical Service to the Community. This should be required before any Candidate should be allowed to stand for a National or International Parliament.

But even then, how could we select our ablest men under a Democratic System? Only by the principle of Graded Franchise as explained above (p. 456). Further, the scheme underlying this principle would work to greater advantage if all citizens were better educated. The education of the citizens might well start in school-life. Training in responsibility and efficient service should be demanded before places of authority are filled. Service and sacrifice should be held out as the highest honours, and those in whom these are best expressed be given the positions of trust. This

would be continued in College and University and gradually permeate all departments of life.

In each of our great Universities, a Chair might be devoted to Politics and Government, and a course of training provided for this vocation, instead of leaving it to the haphazard chance of circumstances, as at present.

The tendency should ever be in the direction of example rather than precept, of service rather than authority.

"For service and sacrifice are the duty of all who are happy and comfortable in the world. It is not the poor or the ignorant who ought to be told to sacrifice. They already involuntarily sacrifice too much. It is those who are well-off, those who are cultured, those who are educated, those who have the good things of society who should be ready to sacrifice themselves that others may be lifted up".¹

THE POSITION OF POLITICS

The work of the Politician has therefore a most important place in the Plan of Life. It is not the "dirty business" that some would imagine it to be. Even if it is sometimes degraded, it is all the more necessary for those with nobler ideals, strength, courage and wider vision to come and help it to serve its greater purpose by entering the field of politics. Only by unselfish service and sacrifice can we inaugurate the new Civilization and the Brotherhood of Man.

While we may conceive that this Brotherhood has a spiritual basis, it can never be realised or fulfilled by vague generalities or beatific platitudes. It must be put into practice here and now in every department of human life and activity. The politician, through efficient Government, has the responsibility of carrying out this high and important function.

THE REAL PROBLEMS OF LIFE

It must, however, never be forgotten or over-looked that even when all such social benefits are secured, when each has all the necessities of life and even luxuries in abundance, when the "Rights of Man" are fully established, the more fundamental problems of life are *not* necessarily solved, otherwise the millionaire would have reached perfection!

Pain, depression, fear and loneliness will still exist and will cause even greater suffering than the denial of any material benefit.

¹ Annie Besant.

Attention must therefore continually be called to the fact that the real problems of life can *only* be solved by each individual for himself, that "The Kingdom of Heaven is within" and each must find it for himself. There is no other path and no other way, and he who would attempt to persuade us otherwise, whether by religion, science or politics, does worse than lie, he covers up the truth!

So may each one struggle to understand and live his own life to its noblest purpose, leaving the synthesis, the co-ordination and the sublimation of all human efforts to the greater purpose of God's Will!

WHAT THE WORLD WANTS

1. The immediate provision of an administration of Justice, Law and Order throughout the World, so that all Peoples wherever they may live or under whatever conditions they may be existing, shall have the fullest opportunity of conducting their lives freely and developing to the full all those capacities which they brought with them into the world.

2. For this purpose a Government of the whole World shall be established to safeguard those Rights for every Individual, Community, Nation and Race and to provide means by which the progress of Civilisation, the development of the Arts, Crafts and Sciences, the protection of the Religions, Faiths and Beliefs, the encouragement of Educational, Social and Industrial Services shall be maintained and extended.

3. In view of the fact that there exists or could be obtained or cultivated abundant supplies of all Necessities of Life, the World Government shall secure an equitable distribution of all the Material, Natural gifts and Products of Mother Earth for all who need them.

4. To prevent the outbreak of War or other Hostilities for the settlement of disputes or misunderstandings and to ensure those matters being settled justly and impartially for the maximum benefit of all interests concerned, the World Government shall establish and maintain a World Court of Justice and a World Police Force to secure fair and impartial judgment and decisions in regard to the relationship between Nations, States, Countries and individuals.

5. The World Government shall take every practical step to establish a World Commonwealth and Community, so that all men and women shall be enabled to live in peace and harmony and on terms of good-will with all the Peoples of the Earth.

6. The World Government shall establish a Universal System of Communications, Postage, Coinage and Measurements and any other effective means for easier co-operation between all Human Beings.

7. The obligations and responsibilities of the World Government will further include :

- (a) The control of all Armed Forces of all Nations so that these shall only be used for the administration of Justice and Order and secure Equity for every Nation and group of people by protection from unlawful attack.
- (b) The securing of the highest standard of Health and Strength for all individuals by the dissemination of the laws of Health and Medical Knowledge, and the encouragement of a clean, hygienic and exemplary mode of life.
- (c) The provision of all Necessities of Life such as Food, Clothing, and Shelter for every man, woman, and child.
- (d) The securing of a recognition of the Duties and Rights of Man and the encouragement of a high standard of conduct in all Human Affairs.
- (e) The promotion of the well-being of Society, the encouragement of Sacrifice and Service as the greatest contribution to public benefit and a fuller recognition of the established principles of the Brotherhood of Man.
- (f) The safeguarding of the reasonable rights and privileges of all Minorities in Religious, Racial, Political and Social Groups, undeveloped and backward Nations, and the protection of the weak, the poor, the afflicted, the sick children, women, and the aged.
- (g) The greatest possible freedom of Travel, Trade, and Transport to be provided for all inhabitants of the Globe by the encouragement and development of all forms of Transport, the removal of barriers, and the increase of facilities.
- (h) The undertaking of such other activities or responsibilities not mentioned in this statement in the interest of the well-being of Mankind and the protection of all forms of life on this Planet.

APPENDIX A

SOME INTERNATIONAL DECLARATIONS

Atlantic Charter	...	14th August, 1941.
The Declaration of Philadelphia	...	10th May, 1944.
The Crimea Declaration	...	11th February, 1945.
The Act of Chapultepec	...	3rd March, 1945.
United Nations Charter	...	26th June, 1945.
Proclamation to Japan	...	26th July, 1945.
The Potsdam Conference	...	2nd August, 1945.

APPENDIX B

SOME INTERNATIONAL ORGANISATIONS

United Nations—Lake Success, New York, U.S.A.

Councils and Committees.

Security Council (S.C.U.N.)

International Labour Organisation (I.L.O.)

Food and Agriculture Organisation of the United Nations. (F.A.O.)

Educational, Scientific and Cultural Organisation (U.N.E.S.C.O.)

International Civil Aviation Organisation (I.C.A.O.)

International Bank for Reconstruction and Development ("I.B.R.D.")

International Monetary Fund ("I.M.F.")

Universal Postal Union (U.P.U.)

International Telecommunication Union (I.T.U.)

World Health Organisation (W.H.O.)

International Refugee Association (I.R.O.)

International Trade Organisation (I.T.O.)

International Court of Justice—Hague, Netherlands.

The Theosophical Society—Adyar, Madras, India.

National Peace Council—144, Southampton Row, London, W C. 1.

Anti-Racial Alliance, 40, rue de Paradis, Paris, 10e, France.

International Association for Social Security, 9, Rue Gautier, Geneva, Switzerland.

International Broadcasting Union, 37, Quai Wilson, Geneva, Switzerland.

International Bureau for the Unification of Penal Law, 8 Route de Florissant, Geneva, Switzerland.

International Committee for European Federation, 100, rue Reaumur, Paris, 2e, France.

International Committee of the Red Cross, Palais du Conseil General, Geneva, Switzerland.

International League for the Protection of Native Races (Coloured Races), La Bergerie, Cartigny, Geneva, Switzerland.

International League for the Rights of Man, 86, Riverside Drive, New York 24, N.Y., U.S.A.

International Peace Bureau, 8, Rue Charles Connet, Geneva, Switzerland

International Statistical Institute, 26 Lange Houtstraat, The Hague, Netherlands.

Inter-Parliamentary Union, 6, Rue Constantin, Geneva, Switzerland.

World Congress of Faiths, Parliament Mansions, Abbey Orchard Street, London, S. W. 1.

World Federation of United Nations Association, 1, Avenue de la Paix. Geneva, Switzerland.

World Union of Peace Organisations, 37, Quai Wilson, Geneva. (All communications to 144, Southampton Row, London, W.C. 1.).

APPENDIX C¹

SOME WORLD STATISTICS

<i>Country</i>	<i>Approx. Area in sq. miles</i>	<i>Approximate population in millions</i>	<i>Number of persons per sq. mile.</i>
Europe	... 2,000,000	400	200
Asia	... 10,000,000	1,290	120
Russia	... 8,000,000	200	25
N. & C. America	... 9,000,000	180	20
Africa	... 12,000,000	150	13

¹ Vide the Map of the World at the end.

S. America	...	7,000,000	90	13
Oceania	...	3,000,000	10	3
Polar Regions	...	5,000,000		
		<u>56,000,000</u>	<u>2,240</u>	

CERTAIN COUNTRIES OF THE WORLD

Gt. Britain	...	60,000	50	833
Japan	...	263,000	100	378
Germany	...	226,000	80	354
Italy	...	131,000	45	343
India	...	1,577,000	400	254
France	...	213,000	42	200
China	...	4,500,000	500	110
U.S.S.R.	...	8,000,000	200	25
U.S.A.	...	3,000,000	150	50
Brazil	...	3,000,000	43	14
Peru	...	483,000	7	14
Argentina	...	1,113,000	13	12
Canada	...	3,900,000	13	3
Australia	...	3,000,000	7	2

APPENDIX D

SOME LANGUAGES OF THE WORLD

Chinese	...	approximately :	500 Million
English	...	"	400 "
Russian	...	"	200 "
German	...	"	80 "
Hindi	...	"	75 "
Spanish	...	"	70 "
Japanese	...	"	70 "

French	...	approximately :	60 Million
Italian	...	"	40 "
Arabic	...	"	40 "

SOME RELIGIONS OF THE WORLD

Buddhism	...	approximately :	500 Million
Christianity	...	"	400 "
Brahminism	...	"	200 "
Mohammedanism	...	"	200 "
Confucianism	...	"	200 "
Shintoism	...	"	15 "
Judaism	...	"	8 "

APPENDIX E

APPROXIMATE POPULATION OF THE WORLD BY RACES

BLACK TYPE. (Third Root Race)

Negroes	...	...	200,000,000
Dravidians	...	...	70,000,000
Others	...	...	4,000,000
			<hr/>
			274,000,000

YELLOW TYPE. (Fourth Root Race)

Chinese	...	...	500,000,000
Japanese	...	...	80,000,000
Siamese	...	...	10,000,000
Burmese	...	...	10,000,000
Magyars	...	...	10,000,000
Tibetans	...	...	10,000,000
Mongols	...	...	3,000,000
Eskimos	...	...	1,000,000
Others	...	...	5,000,000
			<hr/>
			629,000,000

WHITE TYPE. (Fifth Root Race)

Hindu	...	...	...	400,000,000
Teutonic	...	...	...	350,000,000
Slav	...	...	...	260,000,000
Latin	...	...	...	210,000,000
Arabs	...	...	...	40,000,000
Jews	...	...	...	25,000,000
Persian	...	...	...	12,000,000
Greeks	...	...	...	10,000,000
Others	...	...	...	30,000,000
				<hr/>
				1,337,000,000
				<hr/>

Approximate total World Population ... 2,240,000,000

Few if any, of the First (Atlantean) and Second (Lemurian) Root Races can now be traced on Earth.

APPENDIX F

ESTIMATED ARMED FORCES OF THE WORLD

<i>Country</i>				<i>Estimated Armed Forces</i>
China	...	...	...	6,000,000
Russia	...	...	...	4,000,000
Great Britain	...	...	...	2,000,000
India	...	...	...	1,000,000
U. S. A.	...	...	...	3,000,000
Turkey	...	...	...	700,000
Spain	...	...	...	500,000
France	...	...	...	1,000,000
Others in Europe	...	...	...	2,000,000
In other parts of the world	...	...	...	3,000,000
				<hr/>
Total			...	23,200,000
				<hr/>

In spite of the fact that all Statistics are shrouded in secrecy probably the World is now spending the colossal sum of over £20,000,000,000 per annum on Armaments at the present time. This represents about 35% of the total

Budget of the World—in the U.S.A. it is about 45%, in Britain 40%, and in Russia 35%, and probably 50% more than before the 1940-45 War.

Military Conscription of every adult male is now almost universal.

Atom Bombs, Bacteriological Research, Chemical and Poison Gases, Electronic Devices, Jet Planes and other new weapons, are also being developed on a wholesale scale, involving billions of pounds in concealed funds.

APPENDIX G

ESTIMATED NUMBER OF ANIMALS, BIRDS AND FISHES SLAUGHTERED ANNUALLY FOR HUMAN CONSUMPTION OR OTHERWISE NEEDLESSLY EXPLOITED AND KILLED THROUGHOUT THE WORLD

<i>Animal, etc.</i>	<i>Estimated Number Killed annually</i>	<i>Method of Killing</i>
<i>Cattle.</i> —Calves, Oxen, Cows, Heifers, Horses, Ponies, Foals.	200,000,000	Mostly pole-axed. Probably less than 5% killed by humane slaughter.
<i>Sheep.</i> —Lambs, Rams, Ewes.	400,000,000	Mostly pole-axed, as above.
<i>Pigs.</i> —Sows, Boars, Goats.	200,000,000	Throats cut, or by mechanical killers.
<i>Rabbits.</i>	1,000,000,000	Trapped or shot.
<i>Birds.</i> —Poultry, Hens and Cocks, Chickens, Geese, Ducks, Pheasants, Swans, Turkeys, etc.	2,000,000,000	Necks twisted.
<i>Smaller Birds.</i>	1,000,000,000	Shooting and netting.
<i>Fishes and Reptiles.</i> (No actual figures available)	50,000,000,000	Mostly by nets, and left to die.
<i>Vivisection Experiments on living animals.</i>	20,000,000	Probably less than one million with anaesthetics.
<i>Furs and Skins.</i>	200,000,000	Trapped in most cases and left to die.
<i>Hunting of deer, foxes, bears, lions, tigers, otters, whales.</i>	1,000,000	Shooting generally.

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ECONOMICS—A NEW OUTLOOK

By D. D. KANGA

INTRODUCTION

THE world is suffering from economic malaise. Many factors have contributed to it. Chief among them are the two terrible World Wars which have destroyed fertile lands and affected their productivity, ruined factories and workshops and adversely acted upon their capacities for producing both capital and consumers' goods, and brought about a senseless and reckless destruction of great sources of energy and raw materials, namely, the great power plants, coal and mineral-ore mines, oil wells and vast forests.

The World in an
economic Malaise

The second factor is the *faulty* inefficient system based on competition followed in many capitalistic countries.

The third factor is the *faulty* economic system followed in Russia and other communistic countries which leads to the suppression of the individual, regimentation of his mind, mechanization of his intellect and killing of his initiative.

The fourth factor is under-production and mal-distribution which are the basic causes of hunger in the world today.

The fifth factor, paradoxically, is poverty in the midst of plenty (over-production).

The sixth factor is unemployment where leisure is possible.

The seventh factor is the dividing up of the world through tariffs, international trade and economic barriers as a result of distrust among the different nations of the world.

The eighth factor is the undesirable combination of politics with economics. Economics should be free of politics and of politicians with their vast vested interests who may go any length to please and pamper

any section or sections of people to secure their votes in order to keep themselves in power.¹

This is true under the present circumstances, but there need not be any conflict between politics and economics if both are based on common, high, ethical and spiritual standards.

The ninth factor is the narrow mentality of both employers and employees which needs to be changed from their smaller "I" to the larger "We". When that happens, both will follow their "Dharma" and say: This is *our* industry, we shall work for its prosperity; this is *our* country, we shall work *for the good of the whole population* and spare no pains to make it economically and morally great.²

There is something radically wrong with the present social structure. There is an urgent need for social reconstruction. *It is very necessary to probe deep into the nature and constitution of man* to find out the causes of the present economic troubles. "The causes of the present chaos and conflict and of the economic and financial crises lie within ourselves as well as in our institutions. Both require to be reconstructed".³

It would be a proper thing to inquire whether the great and epoch-making events which have been happening in the world are happening in accordance with some design or plan. *Is there Design in Nature?*

Is there law and order in the universe? Is there an intelligent evolution going on in the world or "is evolution merely the result of a fortuitous concourse of atoms?"⁴ Modern science says, there is design in nature.⁵ It indicates a gradual unfoldment of a Plan, of a scheme of evolution which proceeds in different stages step by step. "Theosophy discloses the universal Law, the inexorable Purpose, the Divine Design, whereby all Life is moving, through an infinite series of Divine Events, the daily happenings in the lives of all, to that far-off Divine Event which shall be the climax, the triumph, the fulfilment, and verily the justification, for the æon-long way".⁶

¹ See the article on "The Great Glut" by Ernest Havemann, pp. 50-57, *Life*, April 10, 1950.

² Over and above these factors, each country may have its own special internal contributory factors: for example, the other special factors to contribute to the economic malaise in India are partition of the country, sudden transition from one kind of administration to another, famines, etc.

³ *A Timely Warning*, by D. D. Kanga, p. 10.

⁴ Haeckel. See p. 293, Vol. I, this Series.

⁵ *The Great Design*, edited by Frances Mason.

⁶ *Foreword*, by Dr. G. S. Arundale, p. ix, Vol. I, this Series.

When we look at the events happening in the world in the light of this "knowledge of God's plan which is evolution,"¹ we find that an order emerges where before there was disorder and confusion, turmoil and disturbance, pain and suffering, anger and injustice. In the light of this knowledge we shall be able to see things in their proper perspective, understand the significance of the different economic theories which have appeared from time to time, lay our finger on the dark and bright spots of each and thus realize what is the next step in the evolution of economic concepts.

In the development of human consciousness man has arrived at a stage when he is dominated by his concrete, logical, analytical mind. The characteristic feature of this lower mind is separateness, exclusiveness, consideration of one's petty interests alone or those of one's party or small group and not of the whole community. (See pp. 275-6, this Vol.) The time has now arrived when man has to outgrow this stage of the small "I" and widen his interests to the big "We", but this is possible only when he liberalizes the present capitalist order by consecrating his business or profession for the well-being of all or, better still, adopts *the right socialist system of the levelling-up type* which is the characteristic feature of the higher, synthetic or social mind. The capitalist economy is based on individualism and therefore there is the possibility of the exploitation of science for a small group of people, whereas in the socialist economy, which is the coming stage, the use of science will be *collective* for the good of all.

The economic world organism is sick. Two world wars in less than 25 years and the threat of a third World War if we are not sufficiently vigilant to avoid it, indicate that there must be some thing fundamentally wrong with the organism and the individuals constituting it. A living organism has both life and form. There must be something wrong, therefore, either with the life of the organism or with its form, or with both. Let us calmly diagnose the maladies from which the organism is suffering, first from the life side and then from the form side.

¹ *At the Feet of the Master*, by Aloyone.

STUDY OF THE ORGANISM FROM THE LIFE SIDE (INDIVIDUAL)

We shall take a rapid survey of the events which have brought to the forefront the study of the individual.

A man who could make two blades of grass grow where one grew before was supposed to be a benefactor of the human race. Science and engineering have now so much advanced that they can make not only two but half a dozen or a dozen blades of grass grow where one grew before ; in other words, they have solved the questions of production and also of transportation, and yet we find millions starving and not getting even one full meal a day, and millions again going without sufficient clothing to cover their bodies. Science has, no doubt, the power not only to produce but also to transport and distribute ; but *there is no desire and will to distribute*. There is again something radically wrong with the human nature which can permit foods to rot or to be destroyed by consuming them in fire, sinking them in the sea or throwing them in the drains rather than transport them to places where they are most needed. The question at the bottom, when properly examined, seems to be one of possessiveness and acquisitiveness, greed and exploitation, desire to possess more than one's needs. This gives rise to a number of complicated questions in society. "The solution lies in understanding what is exploitation, not only physiological but psychological also".¹

Human Nature at Fault

These considerations have brought to the forefront the problem of the individual. It is the individual who must change ; this change must come from within ; his inner attitude must change ; no amount of external change alone, will bring him nearer to the solution of the present-day world problems. Solve the problem of the individual and the world problems will automatically solve themselves. In the words of J. Krishnamurti, the individual problem is the world problem.

The Individual Problem is the World Problem

Every country is moreover trying to be self-sufficient whether it is fitted by nature for that purpose or not. Every country is again producing more than the requirements of its own people and then trying to find outlets in foreign countries for the excess of goods produced or manufactured, with the result that there is cut-throat competition and wars. There is again the struggle for

Cut-throat Competition

¹ J. Krishnamurti.

getting from colonies certain raw materials available only there which have been found to be necessary for the new processes of manufacture.

It is true that an excess of goods exported is needed to pay for essential imports. What is needed therefore is an equitable and properly organized distribution of raw materials and manufactured goods by a world agency, an international trade organization. Its duty will be to see that the resources of our mother-earth are made available to all the peoples of the world according to their requirements. The need for the sharing of the fundamental necessities of life and a free circulation of all essential commodities has to be recognized. The principle that the resources of our mother-earth are intended for the benefit of everybody requires to be thoroughly grasped by the U.N. Economic Council. This, of course, would necessitate a pooling of all resources and bringing into existence a wise and equitable system of distribution. It is gratifying to note that an International Trade Organization has now been established. We hope that the members of this Organization and of the U.N. Economic Council will consider the great problems coming before them from the higher synthetic mind level, that is to say, with a changed mental outlook and a change of heart resulting from a deeper understanding of the laws of life. Only then will they be able to solve the complicated problems facing them.¹

During wars we hear of abuse of the forces of nature which science has placed in the hands of man. The destruction of life, property and art treasures in World War II was more terrible than in the first World War because of the inventions of more devastating weapons of destruction culminating finally in the production and use of the atom bomb. This exhibition of the depravity of human nature, both in war and peace times (vide supra), made some of the leaders of thought and eminent scientists and philosophers dive deep into its causes and give out some memorable and thought-provoking statements which are worth brooding over :

(a) that hitherto too much attention was paid to researches on the sciences of matter and too little to researches on the science of man.²

¹ See Diagram 2, p. li, Vol. I.

² Sir Josiah Stamp: Inaugural Address, British Association for the Advancement of Science, 1936.

(b) that the material and physical sciences have far outstripped the biological and still more the sociological sciences and the gap between the scientific discoveries and their applications to human welfare is tending to increase.¹

(c) that progress in man's moral and spiritual nature has not kept pace with his intellectual progress.¹

(d) that man has controlled the external world and obtained control over nature's forces, but he has still to conquer the inner world and gain control over the forces of his inner nature.¹

(e) that command of nature has been put into the hands of man before he knows how to command himself. Is man ethically fit for the bounties of science?—questioned Sir James Alfred Ewing.²

Look at this question from whatever angle we may, we are again and again driven to the same conclusion, namely, that the problem of all problems that needs to be solved side by side with the problem of economics is the problem of the individual. It is the same age-old problem of "Man! Know Thyself",³ and if the problem is to be tackled successfully the same age-old discipline, namely, the Raja Yoga discipline of India⁴, *modified according to present circumstances*, advocated by the sages and seers of the past, will have to be used, as we saw in the Introduction to Part I, Vol. I, this Series. This will bring about a better understanding between man and man and between nation and nation.

STUDY OF THE WORLD ORGANISM FROM THE FORM SIDE (INSTITUTIONS)

We are passing through a revolutionary epoch. It is an epoch of power and the machine. Science which has introduced both power and the machine, is dominating human life everywhere and displacing human labour in every walk of life. It has displaced and is displacing not only ordinary labourers in agriculture but also skilled machine operatives in factories and

¹ Sir Josiah Stamp: Inaugural Address, British Association for the Advancement of Science, 1936.

² Sir Alfred Ewing (1932): Inaugural Address, British Association for the Advancement of Science.

³ *The Thrill of Self-Exploration*, Part III, this Vol.

⁴ See *Yoga*, Part III and *The Joy of Self-Unfoldment*, Part IV, this Vol.

intelligent clerks in offices. The use of power and the machine has created the complicated problem of *unemployment*. Unemployment leads to poverty, poverty leads to less purchasing power which results in less demand for goods, necessitating the closing down of one department after another, of firms and factories; this results in further unemployment and poverty on a still wider scale. These form a vicious circle.

A happy marriage between science and industry can supply all our requirements and make poverty an anachronism. But it is difficult to bring about this happy state of affairs because of the present economic system in which the chief incentive is the profit motive and not public welfare, where production is whimsical and for profit only and not properly planned for use also with an eye to the welfare of the whole community.

Now let us see how science fares in the present economic system where the profit-making motive is the chief incentive. When a new machine or process helps the industrialist to reduce his staff or cheapen his process, with the result that it keeps costs down and dividends high, then it is hailed with joy and welcomed with open arms. But if a new process tends to scrap a costly plant or to make a lucrative commodity obsolete, then new processes, discoveries and inventions cease to be welcome guests. Under the circumstance, subtle hints are thrown out to the scientists by their employers to proceed rather slowly with their investigations and not pursue knowledge too far, for the increasing productive powers of the industrial machine rather embarrass them. They are, therefore, asked to confine their attention principally to reducing working costs in processes already decided upon and in which huge capital is sunk. Is this not a travesty of the true purpose of science which is search for truth? Scientists are not given full scope to carry on their researches in such a way as to benefit the whole of humanity.

Discoveries and inventions, existing and new, which are gifts of science to humanity, are many. They would benefit mankind as a whole if adopted. But if they came in the way of vested interests they would be bought out or suppressed, stifled or smothered (by restriction of research), sabotaged or spurned, by the monopolistic capitalists and never allowed to see the light of day, or at least for a long time to come. For example, the low temperature

production of iron would turn blast furnaces into scraps and therefore it has not yet come into use. Electric gas-tube lighting did not come into use for many years for the same reason. This is an inherent fault in the present economic system in which the chief incentive is private profit and not public welfare. So long as the present economic order continues, the hostility of the vested interests (who have sunk lacs of rupees in their plants) to progress, improvement, new discoveries and inventions is understandable. All inventions benefiting humanity should, therefore, be introduced slowly, cautiously and wisely. Science cannot hope to thrive under such a system. Hence there is frustration of science.

This inherent fault is due to the fact that the present economic system "consists of independent vested interests without any principle of co-ordination or combination, the result being that the economic welfare of every individual or group was wholly dependent upon his or its particular vested interest without regard to others or to the welfare of the whole body. . . . To remedy this state of affairs, our economic system should be a strictly integrated one, that is to say, no one should have any economic interest in any part or function of the economic organization which is distinct from his interest in every other part or function. His only interest should be in the greatest possible output of the whole. Our economic interests should be no more dependent upon our special occupation than upon any other. We should share equally in the total product, whatever it is In this integrated economic system all are in the service of the nation and it is the business and interest of the nation to see that every one is provided with other work as soon as his former occupation becomes unnecessary to the general weal, and that under no circumstances is his rate of maintenance affected".¹

With such a rational economic system as described above and another of a similar type given below of Sir Stafford Cripps representing the present British Labour Party's conception of a socialist state, power and the machine, and improvements and inventions of any sort would be welcome and hailed with joy and eagerness. The crucial question for us to determine is between planned private enterprise which meant tens of thousands of conflicting and unco-ordinated plans throughout all the industries of

¹ *Equality*, by Bellamy, p. 222.

the country and a central co-ordinated plan not for the profit of private enterprise but for obtaining all the goods needed by the people".

Let us study the other features of our present-day economic order.

Deliberate Destruction or Restriction of Foods and Goods

Under the guise of "planning and scientific management", it plans for deliberate destruction of foods and goods if they are in excess and come in the way of their profits; but as that policy evokes anger from the millions who, in the midst of plenty, starve and go half naked and as that reveals again an age of plenty, the vested interests plan for deliberate restriction of foods and goods and thus produce the delusion of an age of scarcity. As a result of that policy we find, on the one hand, fields lying uncultivated and mines and factories remaining idle and unworked, and on the other hand, millions unemployed pining for work and jobs. Such a state of affairs cannot last very long. It ultimately leads to loss and chaos, to liquidations and bankruptcies, to unemployment, poverty and doles, and, as a last resort, to war.

No Change of Mentality

This destruction of foods and goods and restriction of production were the features and trend in the third decade of the present century and we would have thought that this mentality had changed as a result of the lessons learnt from World War II; but this does not seem to be the case when we read the following news report sent by the UPI.:

"The destruction of 20 million bushels of surplus potatoes in U.S.A. (*January 1947*), it being the first step in the realization of a policy by the Department of Agriculture, of destroying foodstuffs in order to maintain high prices for its products".

This report receives further support from the thought-provoking article on "The Great Glut" by Ernest Havemann "The Great Glut" which appeared in the International Edition of a respectable and reputed magazine like "Life" as recently as April 1950, where the author says: "After spending four billion dollars on 'farm policy' the United States (U.S.A.) finds it has made abundance, a curse", and illustrates as examples, surplus potatoes, surplus dried eggs, surplus corn, surplus soya beans, and surplus cotton.

A distorted Standard of Life

One more feature of the modern economic system (capitalism) is that a false and distorted standard of life, based on a wrong economic theory, is imposed upon the people in the case of goods which are not true necessities of life. These

goods are deliberately made of very poor quality but very showy and attractive to look at from outside. Scientific research is directed to the production of such shoddy, cheap, easily sold and quickly wearing out goods. A false craving to possess these showy articles is created among the people by all kinds of ingenious advertisements. Day after day and week after week, the consumers are hypnotized into believing that they cannot be happy unless and until they possess them. This leads to the multiplication of their needs. To possess these tawdry goods they want money which they try to earn by fair and respectable means if they can or by unfair and dishonourable means, otherwise.

A Degeneration of
Taste

The use of these tawdry goods again leads to the degeneration of their aesthetic tastes. The multiplication of these so-called needs makes the struggle for existence unnecessarily keen.

The wrongness of the economic theory comes in the idea of giving employment to a large number of people who would be required to manufacture these shoddy, easily sold goods which wear out very soon and for the replacement of which, factories must be kept working at full pressure. And this employment of a few hundred people in such factories at the cost of the happiness and degeneration of taste of hundreds of thousands of consumers, is questionable, for it works directly against our æsthetic sense of beauty and simplicity.

A wrong Economic
Theory

Reverting to the question as to how science fares with the present economic system in the capitalistic countries, we may say that science is not as universal in the present century as it was in the nineteenth century; it then worked for the good of the whole community. Today its horizon has become narrow; today science is ignominiously used for commercial gain or narrow national interests; today it is used as a handmaid to industry or "prostituted to the service of the sword and the purse".¹

The question confronting science was whether it would work for humanity internationally, or remain a handmaid to industry and carry on researches which would benefit a smaller number of interests. The present economic order, which is capitalism, does not want science to progress along lines

The Question con-
fronting Science

¹ Bhagavandas : *The World's Dire Need for a Scientific Manifesto*.

which would free the whole of humanity from want. There are always honourable exceptions, of course.

The world is economically divided at present into two big blocks, communism (Russia), and non-communism (U.S.A.)

Communism and non-Communism

There are weak and strong points in both. These are shown in the body of this article. Our aim should be to evolve a system in which the weak points of both these systems are eliminated and their strong points adopted and stimulated. To achieve this object, more attention deserves to be paid to the important question of the relationships between the individual and society, between the individual and the State, and between employers and employees. To bring about a most healthy, harmonious and mutually helpful relationship between them, attention requires to be directed to the problem of the study of the individual himself and to his reconstruction as a whole man by self-discipline and self-dedication to the service of the community. This means that a change of heart and of mental outlook and attitude should take place in the leaders of industry and members of the business community so that they consider themselves as trustees of their wealth and possessions and use them for the welfare of their fellow-brethren.

Improvement of Relationship necessary

It will be heartening for the industrialists and members of the business community to know that self-realization which is the ultimate goal of every human being is possible for them also, here and now, only if they brought about a change in their goal of life, by extending their interests from a smaller circle of their own to a very much wider circle outside, for the simple reason that all those great and wonderful qualities of organization, self-control and self-discipline, which they have already developed in connection with their business, are also the qualities which are needed for Self-Realization.

Why should there be a Change of Outlook ?

We should distinguish between monopolist capitalism, 'self-disciplined liberal capitalism', socialism and communism. The next move from the present capitalist economic system must be towards socialism, but *it must be socialism of the right type*. True socialism which occupies an intermediate position is one of love and of levelling up; that is, true socialists have at heart the welfare of all those below them economically and try to bring them up to their own higher level. Whereas communism is one

Socialism of the right Type

of hatred and levelling *down*; that is, communists have as their aim the extirpation of all those above them economically, by trying to bring them down to their own lower level, by *forcibly* depriving¹ them of their lands, properties and treasures and not giving them any adequate compensation for them.

Levelling up and
Levelling down

England, a true
Welfare Socialist
State

The best example of a true welfare socialist state is, at present, England, for, the basis of the British Labour Party's conception of such a state is social justice, absence of exploitation of the proletariat, full employment, planned economy, economic stability and freedom of the individual. In such a state social security is achieved by the willing co-operation between the individual and the State. The State does not impose its will upon the individual, nor does it suppress his individuality by stifling his incentive, opportunity and responsibility, but leaves him free to make his own unique development according to his temperament through his own initiative and enterprise.

In adopting the socialist system, it would be well to remember the following principle :

"Do collectively whatever you can do best collectively, and individually whatever you can do best individually".¹

How to avoid the
Killing of Initiative in a Socialist
System ?

One objection which is brought against socialism is that it kills the initiative of individuals. That objection would be met by the principle given above. In this connection, C. Jinarājādāsa makes the following two suggestions in his thought-provoking brochure on "Economics and Theosophy" : "Luxury goods" can be left to private profiteering. But the Nation need not *operate* any undertaking; private initiative can be given adequate freedom if the Nation [as now (1941) in war] issues licences to produce and distribute, and exacts the production of accounts of profits and balances".²

Our motto should be, "Encourage collective enterprise without killing the individual initiative".² There should be no suppression of the freedom of the individual. There should be no regimentation of intellect and standardisation of thought. The dignity of the human individual should be maintained at any cost and there should be free scope for the

¹ *Study and Practice*, by Annie Besant, p. 17.

² *Economics and Theosophy*, by C. Jinarājādāsa.

development of individual initiative, enterprise and uniqueness. This, it should be noted, is not the case in communist countries.

If science is given free scope for research it can by its new discoveries and inventions *create* employment for tens and hundreds of thousands of people; for example, wireless, radio, cinema, aeroplane, etc., have given rise to a number of new industries and so has absorbed hundreds of thousands of people in all kinds of work, skilled and unskilled. Our economic system should be such that the scientists get a free and unhampered scope for research. The present economic system does not give such a free scope; it has its inherent weakness. It therefore requires to be changed.

The question which we have to face boldly is whether this change is to be brought about peacefully, smoothly, without any dislocation in society as happened in England in the autumn elections of 1945 when the people gave a decisive verdict in favour of a socialist Labour Government, or by blood-bath and revolution as happened in Russia in 1917. The change from a capitalist system, in which the chief feature is cut-throat competition, to a socialist system in which the chief feature is co-operation, is bound to come sooner or later. All the events taking place in the world for many years past are leading to that end. If that is the case, then the people must be made aware of, and be prepared for, that change; they must be educated along those lines. But education alone is not enough. "In order to create the proper contexts for economic reform we must change our machinery of Government, our method of public administration and industrial organization, our system of education and our metaphysical and ethical beliefs".¹

But a change in beliefs, education and administration is possible only when man himself changes. And that is possible only when man realizes that he himself is responsible for the mess in which he finds the world today; when he understands that he himself has created that mess, that chaos, that confusion, and that nobody else can bring about a change in the environment, in society, and in the outside world but he himself by bringing about that change within himself first of all. For, it should be remembered that changes in society are not due to mere material transformations—to mere changes in the technique of production,

¹ Aldous Huxley, *Ends and Means*, p. 59.

but that they are the results of changes in human consciousness. "A civilization is nothing but a spiritual structure of the dominant ideas expressing themselves in institutions and culture". (General Smuts)

This means that there should come about a complete change in our outlook on life. This change in our outlook on life, this change in our consciousness, could come about only from a theory of life which should be as complete and comprehensive as possible. It is, therefore, understandable

The Need for a
comprehensive
Theory of Life
attressed

why in Manu's scheme of economic and social reconstruction the greatest importance is attached to the need for a complete and comprehensive theory of life.

The subject of economics provides a very interesting study as to how science, industry, the nature of the economic system and the theory of life act and react upon one another. Let us try to understand a few more facts in our study of this question :

The Interaction
of Science, Industry,
Economic System
and Theory of Life

(1) That we all stand or fall together according to the fundamental principle that the poverty and destitution in one area is a positive menace to the prosperity and well-being in all other areas. The security of one country demands the security of the other countries as well.

(2) That we are living in a world of relativity ; that we are all on different grades of evolution, having different ideas, beliefs, temperaments, etc.

(3) That no one economic system will be found to be suitable to all the countries of the world. That a system which is suitable to one country may not be suitable to another country.

(4) That a system which was found to be suitable to a country at one time may be found to be unsuitable to the same country at another time because of a change of ideas and of a sense of values due to a change in the focus of consciousness.

(5) That the ultimate goal of human destiny is the unfoldment of the Spirit that man is, the unfoldment of his individual uniqueness. Any economic system which comes in the way of the unfoldment of the man—the whole man—physical, emotional, intellectual, moral and spiritual—is a faulty system and therefore needs to be changed. This would be a very good criterion to go by.

A good Criterion
to go by

(6) That the economic system followed in any country, whatever its name, (communism, socialism or capitalism) should be based on spiritual foundations, that *man is a fragment of the Divine*, having body and mind as his instruments and *not a mere economic animal*.

(7) That the present-day communist and leftist propaganda, for example, in communist countries like Russia and others similarly oriented, are based only and solely on the *economic* nature of man. There lies the danger. Such a system would end in the destruction of society, for it is based on the supposition that man is mere body and brain, a purely materialistic view.

(8) That it is true that man does not live by bread and butter alone, but it should also be remembered that he cannot live either without bread and butter; it is therefore very necessary that a certain adequate standard of living in the matter of food, clothing, shelter, etc. should be provided for him by the authorities who are responsible for these matters.

(9) How this problem of raising the standard of living of the common man by providing him with food, clothing and shelter is dealt with in countries following different economic systems is therefore a very important problem for consideration. In communist countries like Soviet Russia, the problem is tackled by the suppression of the freedom of the individual and his initiative. It therefore carries within itself the seeds for its own self-condemnation. In democratic countries like America and socialist England, the problem is tackled by giving free scope to the individual to use his own initiative and by safeguarding and promoting his intellectual, moral and spiritual development. *Self-disciplined liberal* capitalism (America) and socialism of the right type (England) are the systems which do not come in the way of the intellectual, moral and spiritual unfoldment of man. They therefore carry within themselves the seeds for their own recommendation.

(10) That there should be a simultaneous awakening of the spiritual nature of man along with his economic freedom. This means that *there should be a change of values, a leaning towards the higher values in life*.

This change of values means change of goal, change of interests, change of mental attitude, change of heart. It means a more definite turning towards intellectual, moral and spiritual possessions than towards material possessions. For this inner conversion, a knowledge of what we really are and of

Raising the Standard of Living of the Common Man

A Leaning towards Higher Values in Life indicated

what part we have to play in the scheme of things, in short, a knowledge of God's plan, which is *evolution* of both life and form, is necessary.

This change of values implies that we wish to find out what is worth while in life, what are the true values that life holds out for us. It means again an insight into the discovery of the permanent amidst the fleeting, of the soul even in the beautiful little things of life. It is the knowledge that we are on earth, here and now, to discover our true self, the soul in everything including ourselves—it is this alone that matters.¹ It means discrimination between true and false values in life. It means a complete overhauling of our present system of education as regards its aim. This means a new type of training and discipline.

A new Type of
Training and Dis-
cipline necessary

This will give us a new type of men and women who will restore order in society by bringing about a right adjustment in the economic machinery of the world.

Under an economic order of the right type, in place of unemployment and doles and the consequent degradation of the individual, there will be employment practically for all able-bodied persons, self-respect, and leisure for cultural and spiritual pursuits. Man will become intellectually,

Emphasis on the
Development of
Character

morally and spiritually rich. If a greater emphasis is laid on the development of the character of the individual² a new type of men and women will come into existence who will use new and unique ways of their own to solve the many supposed-to-be-insoluble problems of the present day, for their greatest happiness will be not in acquiring material possessions but in the wealth of the spirit.

It is only when a man is intellectually, morally and spiritually poor,

Why People go
in for material
Possessions ?

that he becomes greedy of having more and more material possessions, for, to him, that is the only way of commanding respect from the people.³ To gain this end, many a time he abuses his knowledge and prostitutes his powers, follows unscrupulous methods and does not hesitate even to exploit the poor, ignorant, helpless people. One may truly say that "the physical poverty of the masses is due to the intellectual and spiritual poverty of the classes".⁴ On the other hand, the other type of the

¹ C. Jinarājadāsa, *Economics and Theosophy*, p. 16.

² See *The Thrill of Self-Exploration*, Part III, of this series.—ED.

³ J. Krishnamurti.

⁴ Omicron.

individual will consider it his duty and privilege to serve others and feel happy in doing so. In other words, what is wanted is a change in the focus of one's consciousness, a change of mental outlook, **a change in the sense of values.**

To summarize: We realize from what we have stated above that the economic world organism is sick both from the life side as well as the form side. If the world organism is to be made healthy, there should be a *simultaneous change* both in the life of the individual and the faulty economic system which represents its form side. The contributions of both the East and the West, one from the Life side and the other from the Form side are necessary. *But the life side should precede the form side.* Man should reconstruct himself first before he could hope to reconstruct the world. *Both reconstructions*, that of the individual from the life side and of the world from the form side, namely, the integrated economic system, *should go on side by side.* They should begin with the recognition of the dignity of the human person and of his freedom to grow in his own way with an ample provision for, and encouragement to, research and with no possibility of frustration of science. A happy marriage of both East *and* West, goodness *and* intelligence, heart *and* head, religion *and* science is needed. "Economic Reconstruction must have a Spiritual and Humanitarian Basis".¹

If we are wise we can bring about this change by first basing our Economic Order on spiritual foundations (this has not been done in communist Russia and this fact should be carefully noted) and then alter our capitalist economic system by replacing the present profit motive for self by a higher motive of service to the community. This means that we should plan our civilization, first, on an adequate knowledge regarding the true nature and constitution of man, (self-study, self-exploration)², and secondly, we should see that in the economic sphere, we replace the profit motive by a service motive and the present whimsical production by planned production, by production for use and not for profit alone, so that production becomes both scientific and moral and has for its motive the wellbeing of the whole community.

¹ C. Jinārādāsa, *Economics and Theosophy*, p. 15.

² See *Yoga, and the Thrill of Self-Exploration*, Part III, and *the Joy of Self-Unfoldment*, Part IV, of this series.—Ed.

Aim : A smooth
Change without
any Disturbance
in Society

When this is done, there will be equitable distribution of wealth, the rich will become less rich and the poor less poor. But this will be possible when there is not only an intellectual recognition but an emotional experience also, however little that be, of the underlying unity of the human race, that we are all children of one human family and that we all stand or fall together. In other words, this will be possible when there is awareness of the intellect, awakening of the spirit, expansion of consciousness, and "more soul for all". **That should be the gospel of our education.** Let us pray that God may give us sufficient wisdom and insight to enable us to find a way promptly, smoothly, and peacefully, out of the mess we have created, without causing any serious dislocation in society.

¹ C. Jinarājadāsa, *Economics and Theosophy*, p. 15.

EDUCATION

By JULIA K. SOMMER

INTRODUCTION

To an educator, who is at the same time a Theosophist, educational ideals and methods, as enunciated and in part practised by educators since the beginning of this century, have constantly approached more closely the conception of education as taught by Theosophy. Furthermore, certain scientific findings, particularly in biology, support the Theosophic concept of a Self in each human being, in which Self the true human purpose is inherent, directing his evolution. Other biological corroborations exist, but this of the Self is most important as it is the central concept of Theosophic education. Taking evolution for granted, Theosophy holds that as human beings we may so educate, through conscious co-operation with the evolutionary process as a whole and the evolution of the Self in particular, as to attain the goal of human evolution the more speedily. This is plainly indicated in this monograph in its opening and closing paragraphs.

The Theosophic teaching is that all life is divine, and that life as we know it on our globe manifests at various stages in the unfolding of its divinity. Theosophy regards the human stage as individualized divinity, having the power (because of its individualization in the Self) to become Self-conscious of its divine source. This capacity (as yet latent in most people) is peculiar to the human kingdom when compared with the kingdoms below the human. Its presence in the Self (though as yet latent so far as the personality is concerned) designates the human being as quite distinct from the animal, although scientifically he is still listed as the highest type of animal, which is (according to Theosophy) true only of the physical body.

The Theosophical
Teaching

The Goal of the
Aryan Race

In human evolution there have been stages surmounted in the past in race and sub-race development, and there are races and sub-races yet to be. As the monograph shows, the Aryan race has for its goal the development of intelligence which, briefly, may be defined as a harmonious blending of morality, altruism and intellect. The new race type slowly emerging will contribute the unfolding of the as-yet-rare capacity of intuition. Thus each race and sub-race bestows its own peculiar trait or traits in the development of the Perfect Man.

The Teachings of
Theosophy regard-
ing the Evolution of
Humanity are illu-
minating

Because we have a mingling of earlier race types with the Aryan and emerging races, the task of the educator is not an easy one. To the writer the teachings of Theosophy regarding the Evolution of humanity, the return, through many lives, of reincarnating Selves (in various races and sub-races to gain the experiences afforded by each for their unfoldment) have been particularly illuminating in her work and helpful in solving educational problems. As a working hypothesis concerning life, its various expressions, their purpose and goal, and the immediate and ultimate goal of human life, Theosophy proves itself most satisfying and inspiring. With it as a guide it has been possible for her to recognize the common trend in modern educational research and practice and in certain more specialized scientific research, supporting the Theosophic hypothesis, which the monograph shows; also to point out a more satisfactory explanation of certain phenomena of human consciousness and experience than is given by educators or scientists, or than is possible without the theosophic view point. The use of the small *t* in theosophic is adopted in this monograph whenever an idea or concept is expressed that does not especially refer to Theosophic teachings as such. Intuition is active in some of our foremost authorities in science and education, so that because of it they gain occasional glimpses of Truth which, when expressed by them, show themselves to be theosophic, *i.e.*, in harmony with the Divine Plan.

WHAT IS TRUE EDUCATION?

That our universe, of which mankind is an integral part, is evolving, is recognized and accepted by all intelligent individuals. That there is purpose and intelligence manifested in the evolutionary process is also

admitted today by foremost thinkers in the realm of science and philosophy. (1) ¹ As one writer says: "The idea of a general intelligence in Nature is founded on numerous evidences of what looks like consciously purposive control not only in the living, but also in the inanimate world". (2) It is therefore possible to define education as that same evolutionary process self-consciously and intelligently carried on by humans to fulfil the inherent evolutionary purpose of Life, Life being the motive power immanent within the universe. It would seem consequently axiomatic to say that a truly educative procedure must be in harmony with the purpose of Life at any particular stage of its manifestation. Hence also the corollary that when it is so in harmony it will be found to aid, even to hasten, the evolutionary process; and when out of harmony it hinders and may thwart its perfect fulfilment.

These fundamental theosophic principles of education are definitely stated, and elaborated in detail, by the well-known biologist, Herbert S. Jennings, in three important biological rules of organic growth for the guidance of educators:

I. "The gradual and spontaneous development of the powers".

II. "The interdependence of the physical and mental" (including the emotional).

III. "The rule of attention in physiology and development". (3)

The remainder of this article is illustrative of the theosophic significance of these three rules as revealed by modern research and of their importance in the evolution of man.

THE SELF TO BE EDUCATED

But, before proceeding to the more detailed discussion of these rules, let us first consider what it is we educate, a word whose root meaning is *to bring or draw forth*. Hence true education should draw forth, or out—what? The powers referred to in Jennings' first rule. The term Self, a *theosophic* concept, is a convenient term to designate the sum total of these powers that are to be drawn forth—educated. It signifies the individual's evolving life as a human being, whose latent capacities are gradually and successively brought into manifestation by the evolutionary process. It is the Self that manifests an inherent *human life* purpose, when rightly educated. It is the Self whose various manifestations of

¹ All references are listed at the end of this article.

consciousness we designate as physical, emotional, mental, moral, spiritual, etc., according to the mode of manifestation. It is the Self that depends upon the maturing of its physical body for adequate expression of objective behaviour, or of the powers being drawn out of latency, and upon right education to enable it to act as a wholesomely integrated personality.

It must be recognized, however, that this view is not held by all educational psychologists. The Behaviourists, for instance, are entirely at variance with it. The following statement made by their chief exponent, Dr. John B. Watson, clearly indicates this: "Give me a dozen healthy infants, well-formed . . . and I'll guarantee to take any one at random and train him to become any type of specialist I might select . . . regardless of his talents, tendencies, vocations, and race of his ancestors". (4) Such a statement is the logical conclusion of the theory of mechanistic materialism when applied to human growth. Its absurdity merely shows how out of harmony their basic theory is with the fundamental truths of life.

Under the influence of Behaviourism all psychological concepts of a non-material reference or an intangible implication were thrown into the discard by many psychologists (in the United States, at least). Terms like soul (or Self), emotions, instincts, mind, etc. were considered unnecessary to explain objective behaviour, their chief subject for psychological study, and which according to their theory is entirely moulded by environmental influence. But these terms are being reinstated in educational literature, even the term 'soul' being found useful and necessary. (5, 6, 7) Credit must, however, be given in passing to the Behaviourists for calling the educators' attention to the part played by the environment in moulding adaptive behaviour in the young human being, particularly in regard to the importance of the conditioned reflex both for and against proper adaptation. (8)

The following examples will show the general trend of modern scientific research that is destined to throw the entire burden of proof for a materialistic philosophy of life upon the Behaviourists themselves, at least so far as education is concerned. In a review article entitled "Trends in Modern Science", written by Dr. Mary Anita Ewer for an educational bulletin (9) the writer tells us that G. E. Coghill, physiologist at the Wistar Institute, Philadelphia, concludes from his work with the embryonic development of a salamander that there is in the embryo a "structural provision" for

The Views of the
Behaviourists

Influence of the
Environment

Trends in Modern
Science

"the perpetuation of spontaneity, autonomy, or initiative, as a factor in its behaviour. Any theory of motivation that attributes this function wholly to the environment is grossly inadequate". (10) Another biologist, H. C. Tracy, investigating the young of a species of fish, reported that "the young organism makes its first birth into freedom and begins active excursions at random in its environment at the behest of impulses which arise within itself". (11) In other words, as far down in the scale of life as the fish and salamander, there is self-originated activity.

In the same review article reference is made to Wm. A. White, psychiatrist and author of books on mental hygiene (12), who discussing the philosophical bearings of this type of investigation (Coghill's and Tracy's) points out that the organism is not merely an aggregation of parts, but also that the psyche is not a thing superposed on the body in later stages of evolution. No matter how far down the line, development and behaviour have been governed by a psychic principle. And, as for organs, they are not independent parts which, by integration, form the organism; they are structuralized functions of the organism". Referring to the "psychic principle" in a late book, Dr. White says "life has always had as one of its methods of reacting the method to which we apply the term 'mind'". (13) Dr. White's conception is similar to that of Hans Driesch, whose experimental work with the reproductive cells of lower forms of sea animals (14) caused him to conclude that there must be in the egg some non-material "entelechy", which is the directing principle of embryonic as well as of later growth.

The review article further reports Dr. White defining an organism as being to the environment "the receiver, the transformer, and the transmitter of energy". Dr. Ewer, commenting on this statement, says "Organisms have been defined (physiologically) as having the power of taking in food and building it into their own tissues, of growing, and of propagating their kind. White's definition is logically incomplete (in that it would apply also to electrical transformers). But it completes in a philosophical sense the earlier physiological definition". *This more complete concept of a human being is in harmony with the Theosophical idea* because it recognizes, as Dr. Ewer says, that "our purpose in life is not merely to grow and to propagate; it is also to act upon and within our environment". Furthermore, it recognizes not only a material evolution, but implies a

Organs are structuralized Functions of the Organism

Both material Evolution and Spiritual Unfoldment

more profound spiritual unfoldment of which the former is but the objective aspect. Thus the energy received, transformed and transmitted would have a spiritual source from which, one may logically postulate, all forces or energies in the universe are derived.

This concept of a human being is pregnant with significance for the educator. To be in harmony with the most enlightening of modern research, scientific as well as educational (the latter today must be scientific to be authoritative), he must regard his pupils or students as dynamic beings, plastic to influences from the totality of their environment especially in childhood years, but also capable of Self-initiated behaviour. The educator's function is to guide them wisely, not only in their reactions to environmental stimuli, but also in their release of latent energy and capacity which, properly directed, will promote the fundamental life purpose of each, a task fully requiring the prolonged period of infancy peculiar to the human organism.

Concept pregnant
with Significance
for the Educator

WHEN SHALL WE EDUCATE ?

In discussing his biological rule I Dr. Jennings says : " Much of the power gained by the young human being as the years pass is not brought to him merely by training, by learning, by the exercise of the particular faculty involved, but is a mere consequence of unhindered healthy development. . . . Training is even harmful when it comes earlier than the development of the power which it tries to train ".

It is one of the most hopeful signs in the educational world of today that recent pedagogical research along these lines is demonstrating this theosophic truth. We are now told by a group of educators that " there is an optimum time for learning " various arithmetical processes (and other skills as well) and that to force a child to learn a skill before he is " mentally ripe " for such mastery is " as stupid as would be the forcing open of a bud in an attempt to make a flower bloom early—and as harmful ". (15) This mental ripeness is largely due to the maturation of the nervous system, the development of the myelin sheath around cerebro-spinal nerves and of the synaptic connection of nerve ends (16) whose association is involved in the intelligent expression of arithmetical or other skills by the Self. Theosophy teaches that the Self's experience in past

There is an Opti-
mum Time for
Learning

lives is garnered psychically as so much understanding wisdom, or skill resulting from any experience. Thereafter, in any incarnation, the power to express that much-evolved capacity is dependent mainly upon the maturing of the physical vehicle and upon such limitations as the Kārmic Law in evolution imposes upon that vehicle. A Self that has misused a skill in some life may, for instance, be denied the expression of that skill in a later incarnation through congenital or traumatic conditions of the physical vehicle.

The Working of
the Karmic Law

The Inner Core
of Inheritance

Child study under the controlled conditions of a psychological laboratory is yielding some valuable suggestions, corroborative of the pedagogical findings just mentioned. Especially noteworthy are the conclusions reached by Arnold Gesell of the Yale Psycho-Clinic. Dr. Gesell in his book describing his research (17) deals "particularly with those deep-seated growth factors determined by heredity which give stability to the course of mental development". To Dr. Gesell the concept of *growth* "resolves the antithesis of endowment and environment in favour of a unifying dynamic outlook". He says further "All things considered, the inevitableness and surety of maturation is the most impressive characteristic of early development. . . . Only if we respect this inner core of inheritance can we respect the important individual differences which distinguish infants as well as men".

EDUCATIONAL VALUE OF INFANT PLASTICITY

In another of his research volumes (18) Dr. Gesell, when comparing the responses of the human infant with those of an anthropoid, says the latter "pounces and snatches with an amazing speed which imparts an aspect of superhuman alertness". But, says the author, "he seems less tentative, less adaptive . . . than the infant *homo sapiens* . . . (who is immeasurably superior for the reason that he is only in the first stages of a span of immaturity which reaches down the long years . . . while (the anthropoid) at the age of five is in his prime or past it. . . . The similarities (between the two) are apparent; the differences are hidden and profound". Alfred Korzybski, in his recent publication (19), also says "We discover that there is a sharp difference between the nervous reactions of animals and man. . . . *The function of the human nervous system is a more generalized affair than that of the animal, with more possibilities*".

To which may be added Gesell's observation: "*The pre-eminence of human infancy lies in the prolongation and deepening of plasticity. . . This increased modifiability is extremely sensitive to the social milieu and is constantly transforming the context of adaptive behaviour. (In the human infant) there is a generalized conditionability and a responsiveness to other personalities to which man is special heir.*" (Italics by the writer of the present article for the sake of emphasis.)

To repeat—the "more possibilities", as Korzybski says, of which our nervous system is capable, due to what Gesell calls its greater "plasticity", hence its "increased modifiability" is the peculiar factor in the human organism that makes it human. Since "Adaptation is of the very essence of life", (20) essential for the successful survival of any organism, it must follow that the more complex the organism the greater the power of adaptation needed, *i.e.*, the need for "increased modifiability". Already at birth the human organism is the most highly complex mechanism known in the organic world. Added to this, during its long maturing process it is subject to constant as well as cyclic changes which demand new powers of adaptation, in an ever-widening and more complex environment, the "social milieu". It is but necessary to recall such an important cycle of change in organic growth as adolescence to realize how difficult the problem of adaptation becomes. Comparatively few civilized human beings make a perfect adaptation during that period of growth.

THE IMPORTANCE OF EMOTIONAL DEVELOPMENT

Through the work of psychiatrists (21) and psychoanalysts (22) this mal-adaptation during adolescence has been traced to wrong educational methods in earlier years, *i.e.*, to the neglect or mistreatment of an important element in the human being—his emotional life. An individual's successful growth to maturity does not depend merely upon proper adjustment to the physical world, but also to the "social milieu" which means, primarily, right adjustment in a psychical way to the emotional and mental atmosphere of its human environment, a much more complex and difficult process. To attain this more subtle adaptation the second of Dr. Jennings' rules must be carefully heeded, if emotional health and mental sanity, with their resultant physical health, are to be attained, *i.e.*, if the Self is to be wholesomely integrated with its personality.

Most, if not all, primary desires and emotions gain their first release after birth through some instinctive or "unlearned tendency to action". (23) Each instinct has its distinctive emotional core. (24) If we regard *instinct* as a generic term signifying all innate drives or urges to action, one may recognize the period from birth to puberty as the cycle of instinct development, beginning with that of hunger and ending with that of the sex instinct. Or, the period may be considered as one of a gradual unfoldment of the emotional nature of a human being, with instinctive behaviour serving as an avenue of release for his more fundamental emotional capacities.

The educator's task during this instinct period is largely that of helping the child to direct each nascent emotion along right avenues of human expression and away from the merely instinctive or sub-human behaviour—a difficult though not impossible task, because of the plastic nature of the child, his "modifiability" and the prolonged infancy period of growth. It is mainly a process of sublimation. The dangers to be avoided are those of suppression, repression, and the development of emotional complexes, inhibiting normal development. The presence of such in the subjective self of the personality often results during adulthood in some form of nervous collapse, thus revealing the hidden weakness in the personality (25, 26). The true goal in childhood education is a Self-control in emotional expression, initiated from within the individual, and because he himself finds such control desirable. There lies the crux of the whole problem of education during this period.

THREE STAGES OF SELF-INTEGRATION

The importance of Dr. Jennings' third rule is revealed in the biological law of growth that when an organism is thoroughly engaged in one activity, other activities of that organism lag behind. The neglect of this law, as when children are forced too early to acquire certain mental skills, referred to earlier in this article, results in undesirable by-products of such forced learning—attitudes of disgust, dislike, even hatred, towards the learning process and towards all who have played a part in it. (27) These wrong attitudes (emotional leanings) tend to persist for many

years and to hamper normal emotional and mental growth. The point to realize is that when nature is emphasizing the emotional integration of the Self and its personality, attitudes good or bad, surcharged with corresponding feelings, are indelibly impressed upon that personality.

It is important to realize three definite stages of child growth in order to gain a clearer understanding of the importance of this third rule. Varying names have been given to each stage or period, but for our purpose let us recognize the sensory development of consciousness during the first seven years, during which the Self integrates physically, gains physical control of its organism; the emotional development during the next seven, as the Self integrates and gains emotional control of his organism; and true mental development during adolescence, as the Self integrates and gains mental control of his conscious life. The seven year period is an average; some take longer, some less.

It is not to be understood that the distinctive growth of each stage is restricted to that period, nor that perfect control and growth is gained by the Self in each capacity during its distinctive growth period. It does mean, however, that nature's special attention is given at each stage to a sufficient development of one fundamental capacity of self-conscious life so that the Self may become well-integrated, gaining such mastery in its expression during that time so as to make it possible to achieve further control and growth in later years.

ADOLESCENCE AND TRUE MENTAL DEVELOPMENT

While recognizing the value of psycho-analysis and its contribution to psychological research, a Theosophist would take exception to Freud's designation of the sex force as of purely physiological origin (22). It is primarily a force that may be used in creative activity on any of the levels of consciousness at which mankind functions. It is given special impetus with and because of the maturing of the sex organs at puberty. The boy or girl who has gained true emotional self-control during pre-adolescence finds the task of sex control during adolescence greatly facilitated, because nature's emphasis upon mental growth during that time, plus the extra mental energy demanded by his school studies, or in solving the problems of earning a living, require and make use of the surplus creative force generated or released. Thus the student becomes a better student, the labourer a more efficient worker.

The emotionally uncontrolled adolescent finds proper adaptation towards the opposite sex an exceedingly difficult task, and studies or work suffer accordingly.

Thought power gains its initial release out of latency through some meaningful first-hand experience. Says John Dewey :
 The Need of first-hand Experience of an Evolution " Mere experience does not constitute experience. When we experience something we act upon it, we do something about it ; then we suffer the consequences ". (28) The emotional aspect of suffering the consequence of an action is an important part of the experience. Thought may begin as soon as a child can reflect upon the consequences to himself, in pleasure or pain, of some experience it has had. We may thus realize the wisdom of the changes gradually being made in school curricula—away from the purely formal and academic work to what is known as the activity programme, providing meaningful experience and thus laying the foundation for a truer understanding. (29-33) It would seem from a practical observation of mankind, as well as from statistical evidence of intelligence testing, (34) that most civilized human beings still need much first-hand experience in their school career to aid them in learning how to think for themselves.

First-hand experience is the more necessary, *from a theosophical viewpoint*, the younger a child is in soul (or Self) evolution. It is only the older soul, with many lives of first-hand experience behind him, that can really benefit from our textbook or academic type of learning. To such the thoughts contained on a printed page may be, and usually are, a mere reminder of what he has learned in other lives. He is not learning ; he is remembering, which must not be confused with memorizing. To be able to memorize a printed page easily is no assurance that one has learned or thought about the subject matter, so as to use it intelligently. The one who truly remembers the gist of some knowledge gained in past lives finds little difficulty in applying that knowledge intelligently in this life.

Another aspect of the harm done by mere book learning is that of indoctrination. Before the child has learned to think for himself his plastic mind is easily impressed by authoritative statements of parents, teachers and textbooks. The harm done is well described in the following passage :
 The Harm done by Indoctrination " Indoctrination involves the imposing upon the child of one set of ideas, to the exclusion of his own thought. Education is the freeing

of the individual. Indoctrination is the binding of the individual to the views of some group of adults. Education should lead towards growth. Indoctrination stultifies growth". (35) To the extent that we indoctrinate the minds of children with the dogma of authority and tradition we crystallize them, and to that extent they cease to grow. They may break through the crystallization in later years, but their growth was halted to that extent. Mrs. Marietta Johnson declared rightly that "The prolonging of childhood (its plasticity) is the hope of the race". (36) In helping a child to solve a problem of life we should keep his mind plastic, help him to be open-minded, eager to consider all the possible solutions presented to him by his elders. When he is mature enough his own solution will come to him out of the latency of his own storehouse of wisdom, the Self, a choice best promoting his further soul growth.

LEADERS OF A CIVILIZATION

The avoidance of indoctrination is particularly advisable for older souls, in young bodies, whose garnered wisdom may entitle them to be leaders of a new civilisation. They think for themselves much earlier than younger souls, yet indoctrination may delay the expression of their own wisdom, and to that extent delay their own and the progress of the race. *From a theosophical viewpoint* these older souls among our children can easily be detected, in a non-technical way, by discriminative observation of their conversation and behaviour. For a more technical method our modern intelligence tests, plus character tests, might be used.

Intelligence testing has been a special subject for research by Lewis M. Terman and a group of collaborators in their work with a thousand and more super-bright children in California Schools. (37-39) Of the three volumes issued by this group of workers, the second (38) gives the estimated mental rating of three hundred well-known geniuses of the past. Miss Cox, the author, notes that the group of *most eminent men* included "individuals who, according to the records, possessed in childhood intelligence somewhat below the highest order", and her conclusion is "that high but not the highest intelligence, combined with *the greatest degree of persistence*, will achieve greater eminence than the highest degree of intelligence with somewhat less persistence". Note the importance of *persistence—will-to-achieve—a character trait*.

Intelligence Testing
of super-bright
Children

What are the Requirements of a successful Leader ?

But in schools there should be no segregation of these super-bright from the less endowed. The progressive type of activity curriculum requires children of all degrees of intelligence, thus agreeing with Life's school of experience in which we are all learning. Furthermore, leadership to be successful requires not only intellect but also capacity to understand and adapt oneself to varying types of human beings. Such relationships—attitudes towards others, and especially the less endowed, which command respect, trust, and sincere admiration—are best developed early, during school years, for even then leadership reveals itself and can be rightly fostered by wise teachers. It is to such possible leaders that Alexis Carrel refers in his recent book: "The happiest and most useful men consist of a well-integrated whole of intellectual, moral, and organic activities. The quality of these activities, and their equilibrium, give to such a type its superiority over others . . . It is only with such thoroughly developed individuals that a real civilization can be constructed". (40)

Miss Cox has also this to say on the relative value of heredity and environment and a *probable third factor* which must also be taken into account: "The inheritance of a child of able parents is undoubtedly superior, yet it is not sufficient in itself to account for genius. . . . The peculiar combination of inherited traits which make up a genius—the most favourable chance (*sic*) combination among many less favourable ones—is an equally significant factor, and so an eminent man may be the son of a tinker (Bunyan), of a stone-cutter (Canova), of a mason (Carlyle), of a strapmaker (Kant)". Concerning the importance of environment she cites "the extraordinary training for leadership received by Pitt the younger, John Q. Adams", and others, as well as "the specialized instruction of Mozart, Weber, Michael Angelo".

"Eminence is not a Function of Heredity or Environment Alone".

But here too we have exceptions, for "The struggling cobbler Winckelmann was able to do little for his son . . . an eminent archaeologist. The opportunities offered to Faraday, Lincoln, and Blucher were apparently not favourable to success. Thus it appears that while individual chances for eminence are usually dependent upon favourable hereditary background and are increased by favourable opportunity, eminence is not a function either of heredity or of environment alone".

Theosophy would say that eminence is a function of the Self who is alone responsible for the "peculiar combination of inherited traits" which make up his genius, traits developed in many past lives. And there is no "chance combination" of these, as our author says, for the Self is responsible for the combination. It is the Self, the third factor, that can rise superior to either heredity or environment, or both; but particularly to environment, for there is usually some hereditary trait in one or the other parent (either of intellect or character) that the Self needed, which required the special emphasis given by heredity, to enable the Self to accomplish the task performed in that incarnation that brought him eminence.

Eminence is a
Function of the Self

EDUCATING FOR LEISURE OR THE INTRINSIC VALUE OF LABOUR

The more immediate and practical aim of education is to prepare individuals to earn a livelihood. To the more formal and academic type of training, requiring a mastery of the Three R's, there has been added the teaching of some of the fine arts, and the establishment of trade or vocational departments to meet the needs of different types and classes of children. But, what is not yet sufficiently understood is that the task of earning a living and the pursuit of some creative fine art have essentially the same fundamental evolutionary value or purpose. Both require labour, the will-to-achieve, some effort to accomplish a goal and the correlation of hand (or body) and mind. When that task is done in a worthy manner it calls into active expression some bit of inner capacity or some creative power, depending upon the kind of work done.

This being true, then our modern type of machinery that throws millions out of employment is not only depriving them of a chance to earn a living, but of a chance to evolve, to call out of latency some inner capacity, the reason for our being. A civilization that allows such human stagnation, without remedying the condition, is doomed. A way out has been suggested, *viz.*, the short work day with adequate pay, a living wage. But the short work day is also a hindrance to progress, because of the nature of machine work, unless the leisure time at the disposal of the labourer is used in some constructive, creative way.

To educate the Child and the Adult for Creative Leisure	to educate the child, and the adult as well, for creative leisure, and not merely to earn a living. The two may be identical, but will not be for the millions who earn their living doing monotonous factory work. As Thorstein
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Veblen says: "According to accepted theories of heredity civilized mankind should by native endowment be best fit to live under conditions of a moderately advanced savagery, such as the machine technology will not permit. Neither in the physical conditions which it imposes, nor in the habitual ways of observation and reasoning which it requires in the work to be done, is the machine age adapted to the current native endowment of the race". (41) The avocation pursued in leisure time must take the place of the vocation, a term which can hardly be applied to mere machine labour. The children of today must be so taught that they will want to employ their leisure time as adults in work that is soul-satisfying, which means joy-giving because it satisfies an inner need, since it calls out of latency in each "his own combination of powers".

INTELLIGENCE—HUMANITY'S IMMEDIATE EVOLUTIONARY GOAL

It is generally recognized by foremost Aryan thinkers that one of the chief objectives of education should be the development of intelligent minds. Arthur H. Compton, well-known physicist, has been reported as saying that the study of modern physics, and especially that of atomic structure, "strongly suggest that the evolutionary process . . . is directed towards some definite end. If we suppose that evolution is directed, we imply that there is an intelligence directing it. It thus becomes reasonable to suppose that intelligent minds may be the end toward which such intelligent evolution is proceeding". (42) We must admit that we have done but little towards achieving that end when war, with all the diabolic destruction and cruelty that it implies, is as yet our chief recourse in settling national and international disputes; and when we allow depressions in the financial world, if they must occur, to be so widespread in their toll of misery and want.

Harl R. Douglass (University of Minnesota) has put his finger upon the fault in our educational methods which he thinks is responsible for the recent depression: "The schools of this country have always worshipped

at the altar of erudition and information. . . . At the same time we have neglected the more difficult, more subtle, and more important outcomes of learning which are absolutely essential not only for worthy home membership, and civic and moral efficiency, but also for economic prosperity".

(43) If this be true for America, and probably for all countries more or less, we seem to have mistakenly supposed that training the intellect would develop intelligence. The two words are often used interchangeably, even in the dictionary, but practical usage has developed a distinct concept for each. To speak of a person as being "so intelligent" conveys quite a different meaning from that of saying he is "so intellectual." Just what is the difference?

Difference
Explained

The intellect is that mechanism, or mode, of consciousness that enables one to gather and deal with factual knowledge *per se*, to compare, discriminate, and reason thereon, in order to gain a better understanding of it. But to apply that knowledge, thus gained, in a wise and purposive way requires intelligence, an intelligence that ought to reflect, to some extent, the intelligence of Nature. The geologist, Baily Willis, has intimated this in the following statement: "Somewhere in the lower realms of life, consciousness became an attribute of living organisms. From such dumb beginnings it has evolved through reflexes, through instincts, through sub-conscious mental activity, to thought and intelligence. Has the living organism that is man thus, after millions of years of evolution, developed something quite new in the universe? Or has he simply acquired the capacity to reflect a ray of universal intelligence? . . . Law is dominant. But Law is inconceivable without Intelligence. Law is omnipotent and omnipresent. Intelligence, the inevitable antecedent (to Law), must be omnipotent, omnipresent and omniscient". (44)

Intelligence is
Knowledge, Will-
to-achieve and the
Power to feel with
others (Sympathy)

It may be difficult to translate these three attributes of universal Intelligence into terms applicable to human personalities, but the attempt should be made if we are to reflect that Intelligence truly. *Knowledge* for omniscience is easily recognizable. May *will-to-achieve* represent power or omnipotence? If so then the only difficulty lies with omnipresence. Perhaps the mystical sense of the unity of life, a feeling of oneness of the personal with the universal life, puts one sympathetically in touch with all life expressions, enables one to be, as it were, omnipresent

through sympathy. Social- and broad-mindedness have something of this *universal sympathy* in them; also altruism. These more familiar terms are the "more important outcomes of learning . . . absolutely essential", at least in the writer's opinion, for the development of true intelligence. Knowledge, will-to-achieve, and sound traits of character, including sympathy (the power to *feel with others*), must go hand in hand to become intelligence.

INTUITION

Certain capacities for Self-expression, still undeveloped for the majority of individuals, are sufficiently active in others to have become the subject for scientific research. (45, 46, 47) Wm. McDougall lists three (48) in support of a theistic hypothesis—the true mystical experience, telepathy, and the psychism that deals with survival after death. Alexis Carrel in his recent book (49) mentions four: "Clairvoyance and telepathy are a primary datum for scientific observation" and mystical experiences, he says, belong to "one of the essential human activities". Of intuition, the fourth, he writes: "From time to time, among the billions of human beings who have successively inhabited the earth, a few were born endowed with rare and marvellous powers, the intuition of unknown things, the imagination that creates new worlds, and the faculty of discovering the hidden relation existing between certain phenomena". The imagination whose creation proves to be true or prophetic is also based on intuition, hence the three powers named by Carrel all refer to intuition, an expression of consciousness becoming more prevalent today and recognized by Theosophy as the distinguishing trait of the new human type developing now, which later will be recognized as the sixth of the races that have developed on this globe, the Aryan being the fifth.

Intuition somewhat resembles what is popularly called in America "The Hunch" "the hunch". Both make their appearance in the waking consciousness suddenly and with an impelling force. But there the resemblance ends; for intuition is always impersonal and unselfish (not concerned with selfish ends), while the hunch only concerns itself with personal affairs, one's own or that of others. The hunch seems to be closely allied in some respects to instinct. Bergson in his comparison of instinct and intuition makes the latter a sublimated manifestation of the former. He says: "By intuition I mean instinct that has become disinterested, self-conscious, capable of reflecting upon its object and of

enlarging it indefinitely". (49) For Bergson intuition is self-conscious in that human beings in whom it functions are aware of it, whereas sub-human creatures are guided by instinct but are not aware of it.

Comparing both instinct and intuition with intellect, Bergson gives to the first two the quality of sympathy which pure intellect does not have. But, in another of his works he says: "By intuition is meant the kind of intellectual sympathy by which one places oneself within an object in order to coincide with what is unique in it." (50) If both instinct and intuition emerge from the same universal stratum of conscious life, we may regard the individual human expression of it as intuition, while Nature's expression of the same universal aspect of consciousness we term instinct, or Nature's intuition working in the sub-human kingdoms, to which belongs our own autonomic nervous system and the organs controlled by it.

As a power of consciousness, and from a Theosophical viewpoint intuition may be called the direct perceptive power of the Self in its own world of Self-conscious life, as well as its power of receptivity (plasticity reappearing on a higher level of consciousness) to the unifying spiritual influence of the One Life permeating all organisms. Recognizing the perceptive power of the Self in and of the physical world as sensation or sensuousness, its perception in and of the world of feeling as emotion, its perception in and of the thought world as mentation, then its perceptive power of the next higher stage of conscious life expression is intuition. Each mode of perception has physical end-organs, making awareness of the percipience possible in the waking consciousness. End-organs of sensations like the eye, ear, etc., are well known; so also is the end-organ of thought, the brain. It is the writer's opinion that the sympathetic nervous system, *plus its connected endocrines*, may be regarded as the end-organs of emotion (51, 52), while the *endocrines in the head* enable the intuition to come through. Descartes considered the pineal gland the seat of the soul, the materialists reject that idea.

It is the privilege of educators to hasten the development of the new human type by so educating children as to arouse intuition for more individuals than the few who now seem to enjoy it. It requires the kind of education quite within the jurisdiction of educational institutions. As an objective in education it includes most of the other goals. First

Instinct and
Intuition

The End-Organs of
Sensation, Thought,
Emotion and
Intuition

How to hasten the
Development of the
New Human
Type

of all there must be more definite attention given to character development and to nobility of aims and of living. The creative imagination should be fostered much more generally than it is today; also the sympathetic imagination that enables one to feel and think as others feel and think. The universally human instinct of curiosity should be carefully nurtured, so that the mysterious workings of the One Life in the world of Nature may fill young and old with wonder and reverence. Thus may educators hasten the day when the misery of mankind will disappear, for with intuition we "shall know the truth and the truth shall make (us) free" from ignorance and selfishness.

P.S.—The writer desires to record her indebtedness to Miss Marie Pontz for her helpful suggestion, during the writing of this article, leading to its improvement, and to Dr. Mary Anita Ewer for the time spent in reviewing the manuscript and her helpful criticisms thereon.

J. K. S.

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described in the text, the following reading list is suggested. The use of the index or of chapter headings is advisable for the last three books mentioned to gain information on special topics, as each book covers a wide range of subjects under the general title of the book.

THEOSOPHICAL READING LIST

C.W. LEADBEATER :	<i>Clairvoyance</i>	These books are all published under the auspices of the Theosophical Society and may be obtained from the three main book distributing centres :
C. IINARĀJADĀSA :	<i>How We Remember Our Past Lives</i>	
J. E. MARCAULT :	<i>The Psychology of the Intuition</i> (a pamphlet)	
ANNIE BESANT :	<i>Thought Power, Its Control and Culture</i>	
"	<i>Psychology</i> (vol. 1 of Essays and Addresses)	
"	<i>Evolution and Occultism</i> (vol. 3 of Essays and Addresses)	Theosophical Publishing House, Adyar, Madras, India.
"	<i>The Ancient Wisdom</i>	Theosophical Publishing House, London, England.
		Theosophical Press, Wheaton, Illinois, U.S.A.

NOTE

1. The goal of education is the awakening of the religious consciousness, that is, of the consciousness of the divine principle, of the divine nature of man and the universe and this consciousness finds its expression as an active and loving attitude towards the world.
2. Religious consciousness generates the sense of duty, of moral responsibility, the need of self-education.
3. Self-education leads to spiritual hygiene, spiritual culture.
4. Spiritual culture generates, in its turn, the yearning for activity for the general good, that is, for the creating of new life and for active service. (Alba)

A teacher teaches by what he knows but *educates by what he is*.

The function of a true teacher is to inspire his pupil by his life. He should be the embodiment of his pupil's ideals.—ED.

THE MINISTRY OF THE RACE

BY MARIA MONTESSORI

OUR epoch which stands out for its surprising progress lacks however something which is essential for civilization, and this is what we might call "cultivation of humanity". It is a striking contradiction that, while in the field of agriculture so much care is expended and such marvellous achievements have been made in creating new and very beautiful varieties of flowers and fruits, there is not a similar attempt made to "cultivate humanity".

When agriculture embarked upon a scientific path introducing machinery and mechanical aids to enrich the soil, it began at the same time a propaganda by technicians. These were sent by Governments to farms where they taught and showed practically how to apply improvements which would yield greater and better crops and therefore augment their wealth.

Nothing similar has been done for humanity. There is much talk about ill-treated children, about illness which has its origin in the bad conditions of the families, about mortality, but there is no organization that, emanating from Governments, would carry out something similar in the homes to improve the life of the children. Where this exists, it is due to private social organizations and it is utterly insufficient, and yet there is no greater wealth than humanity itself because humanity is the producer of all wealth. The greatest interest of a State ought to be to possess a strong, intelligent and cultured people. In our democratic times where the people indirectly, by means of elections, are admitted to the political constitution of the Governments, no one asks that the children should be better protected, and that new institutions be created to improve their conditions of life, whereas the need of a new bridge, of a dyke, or of new railroad lines is keenly felt.

"Cultivation of
Humanity"
neglected

No greater Wealth
than Humanity

One must conclude that society still lacks a "conscience towards the child", also lacking is the realization that today peace and harmony among nations is impossible if the men of these nations have not been prepared "to feel in their conscience" this necessity.

Humanity appears to concentrate all its power to better the environment but it forgets its own uplift. The only organization that the more advanced nations have created for children is compulsory education. In relation to this a Ministry has been created, the Ministry of Education, on which depend also the higher grades of instruction.

This Ministry however is not at all concerned with the *welfare* and with the life's needs of the children. It only demands that they "be compelled" even by means of punishment, to carry out their study in the same way, following the syllabus that has arbitrarily been formulated. Pupils are "forced" to come to school and to study that which is taught there and must more or less do the same thing. There is the same type of school not only for the children of the primary school but also for those who attend the high schools and even for the students of the University. All these must listen and memorize that which has been taught to them. It is an established principle that all the people attending the same class should be more or less of the same age and they proceed year by year grouped together according to the year of their birth as if they were forty or fifty-plets? One could see the different grades of instruction in their succeeding schools as in a kaleidoscope, a something that never varies. The younger children are there with a young and little experienced teacher; in the higher grades of the primary school the children have grown and also the teacher is an older and more experienced one. Then come the young people attending the middle schools; these are in the care of a young man who has recently obtained his senior teaching degree; then the high schools are peopled with full-grown youths in the care of older men about forty years of age and finally at the university there are grown-up students. They also attend college as do the children and their professors are old and white-haired, but the picture and the reality do not change. There are pupils sitting down and to them speaks a teacher from his desk with all his authority. There are examinations for all and in these they must show that they remember what was taught to them. Within those institutions,

living humanity is not there, nor is there friendship among the students or love between teachers and pupils; indifference reigns here or rivalry. No attraction is felt towards study which is forced by punishment in the first grades and by personal consideration and interest in the final years.

Indifference reigns
in the Educational
Institutions or
Rivalry

Today much is spoken of by psychologists about "repression" in children but considering the uniformity in the manner of teaching, one must come to the conclusion that not only children but also the young and the grown-ups

Psychic Dwarfs

Some Features of
the present System
of Education

among the pupils, as they are forced to learn, must all be repressed, deformed, that is, diminished in their personality. In the educational institutions, therefore, a humanity of psychic dwarfs is produced, in whom the lofty qualities of man have been stifled.

Indeed, each category of pupils has its reactions of inferiority and its manifestations of abnormality. The impertinent rebellion, the disorder and the noise in the elementary school, the organized pranks against the teacher in the high schools, the students' strikes in the university are

"symptoms" of forms of an abnormal life. All that concerns the pupils—their suffering, the conditions of their family, the conditions of their health, their passions and their vices—these are no concern of the school. No great sentiment is cultivated or illustrated so as to infuse in the individuals faith and a sense of responsibility. The poorest leave the school after they

No Sense of
Responsibility

have finished the elementary or junior school. Those who are better-off finish at high school; and only the rich can afford to study at the university; the personal values are not considered at all.

This is the contribution that Governments give to the formation of society and so it happens that human society does not possess "cultivated men" but men who have been thrown in institutions which do not embark on any special scheme to uplift and better humanity. These "semi-men" grow in a spiritual desert, forced to labour as if they have been sentenced, as if they were slaves, to whom nothing is permitted but

No proper Prepara-
tion for the Social
Life

obedience. The pupils spend years, indeed, all their youth in the environment of the school, yet no one knows them, no one has studied them, their names remain in the registers but the man who went along the whole of

that endless path remains unknown—when he leaves the school, he is bewildered because he has not been prepared for the social life of his times, he has not received the preparation to be either a citizen of his own nation or a citizen of the world; he has not even been prepared to form a family conscientiously.

Instead of being "cultivated" he must form himself; and so humanity, even the most civilized, remains unprepared and inferior to its times. More than ready to build a civil organization, it is ready to create disorder, to rebel; it is without character and without the conviction of its own opinion. It unfolds itself upon its own personal needs but incapable of making use of its own energies. It seeks by chance its definite social position by a series of errors and trials. The meaning of one of the parables of the Gospel could be applied here: The Parable of the Seeds "some of the seeds fall upon a stone, but some on the sand and some are devoured by a passing bird and that which falls upon the good earth, that seed alone germinates". All is left to chance, there is no aid that may lead to salvation and offer the good things of the earth to all.

Civilization according to the opinion of all began in pre-historic times when humanity began to cultivate the land, obtaining from it plants that were superior to the natural ones. Well, then, in our super-civilization to the level which modern civilization has reached in its development, another cultivation is necessary: "the cultivation of humanity". Without this all are repressed in a form of barbarity. The environment of our times realizes a superior form, even fantastic in its power, but not so does Man. Man is a barbarian, even more so now than in ancient times, because he is repressed and remains a mental slave during the whole epoch of his individual formation, his epoch in the school.

There is no greater interest in our times than the cultivation of man. It is to man that we owe all the wealth and marvels of the external civilization of today. We realize already that man is unprepared and incapable, even to preserve that which he has constructed. Like the captured wild animals who often destroy their own young, so is the repressed man on the point of destroying the work of his own hands.

To cultivate man is a SCIENCE, just as the progress of the environment is based upon science. So the science which aims to study and to know man, which can indicate the best conditions of life in order to "germinate on the good earth its elevated energies" must be one of the most progressive of our age. Medicine and psychology have already given valuable contributions. Also our long educational experience has contributed its share towards the upliftment of human life.

But what is lacking is the awakening of the "conscience" towards the necessity of directing the development of progress towards man himself. This progress however must not be limited to private initiatives; it ought to be urged and helped to develop as a necessity of public interest. This does not concern only the reform of the school; neither is it proper to give a more extended task to the Ministry of Education. There ought to come into existence a new entity, a new Ministry—"The Ministry of the Race"—which has as its purpose not only to teach and to instruct a profession but to protect the life of man, to know the needs of the population in a secure and positive way and finally to guide and direct consciously the progress of humanity.

It is astonishing that in the evident disorder of the world, this form of defence has not yet been taken into consideration. Instead, for each new need of less importance, a new special Ministry is created. If men have acquired the facility of writing and try with this means to greet their friends who are far away, a Ministry of Postal Affairs is called to life. If the communications become more extended and more rapid with the means necessary for this progress, a Ministry of Transport is formed.

Whereas in regard to the more complicated life of society where the number of neglected children grows, where the number of insane people grows, where minor delinquency grows—the Government remains inert. No Ministry is created for the needs of men in order to help in their adaptation to the new forms of life which are brought into being by external forms of progress. Instead, more and more "social works" come into being, more asylums, more private clinics, more hospitals, all independent in their finality, without a guide which co-ordinates them and without an officially recognized status.

The urgent Need of
the Ministry of
the Race

First Things should
come First

These private institutions however come like a relief to a sick society, but they are not directed towards ways and means of avoiding these illnesses, and in protecting the health of society. Today much is spoken about "unification" of society, but this remains only as a desire, or better as an emphatic statement of a necessity, but no action is taken to implement this vague aspiration. It is clear that in order to unify society, man has to be prepared. Therefore, it is necessary that a part, a share, of the riches gained (gathered) by men through their work ought to be used for the expansion of their life and for their wellbeing.

Today the knowledge concerning the development of the personality, of the different branches of psychology of the various ages is studied without order and only by private initiative. It is a "progress" which remains in the field of scientific literary curiosity only but it is, on the other hand, a very urgent matter and therefore very necessary to estimate its supreme importance, to facilitate its development, and to organize it by every practical means in our power.

Let us take, for example, the schools. Let us consider them purely as an educational institute, as a universal mobilization of the children and youths, up to the adult age. The whole of humanity is united there in their formative period. What a great opportunity to study them, to seek to know the real needs of all, to know which evil needs the most urgent attention. What an opportunity to apply the discoveries of science to human development; also what an opportunity to expand the experience and its application!

They are all united by law in places made for them through the schools; all the youths and infancy—day after day, always there, permanently present for years on end—for their whole young life! Why does not one act here, to improve humanity, to orientate them towards the ideals and aspirations of unity and harmony which would guide them towards universal understanding?

Is not this civilized humanity perhaps congregated and kept all together during their period of formation to produce a practical and saving action, thus exposed to receive the beneficial influence of progress, like the plants which are exposed to the influence of the sun?

It is quite a different thing to instruct man in order to fight against illiteracy, or to teach a handicraft or a profession according to economic conditions, from the objective of bringing any real improvement in life!

A new Orientation
in Education is
needed

The aim should be, instead, to consider humanity, that is man, from his birth, and to promote his development—to satisfy his essential needs in the various periods of growth; to give nourishment to intelligence and to the spirit, to give freedom for the expansion of the mind and to give guidance and orientation to his final adaptation to society. Finally, the aim of education should be to give "spiritual direction" to the greatest of treasures: Man himself.

A spiritual Direction necessary

ART

By JAMES S. PERKINS

A COMPENDIUM on the question of Where Theosophy and Science Meet would be incomplete without some expression of its significance to Art. Science is the accumulation and use of classified knowledge of nature's laws and truths, Theosophy a transcendent wisdom regarding cosmos, and Art a field of skilled action where science and wisdom meet in man's creative play with forces and form.

Each civilization has summed up the significance of its knowledge and skills in its cultural usages flowering in its immortal works of art. Western civilization today is chiefly concerned with machinery and materialism; the world of Science is very much with us. These facts are reflected in western Art. In addition, the revolution under way in religious and philosophical thought profoundly affects Art. Art has ever been a means of objectifying man's greatest ideals and highest vision. The most notable works of art of past civilizations therefore are concerned with religious and spiritual concepts.

The modern precipitate expansion of worldwide civilization has evoked a state of intellectual flux in major religions and philosophies. There is a consequent loss to each of an indisputable sense of direction, thus depriving Art of widely acceptable and dominant ideals to serve with its powers. There is wider admission of conflict instead. The deepest trend in religion is toward universal religion, and in philosophy toward an integration of all knowledge in a search for both meaning and direction to man's struggle for wholeness and harmony. Meanwhile Art is groping toward some universal expression of life, which requires experimenting with new symbols that necessarily by-pass mere natural delineation of form.

Without predominant religious revelation to serve, artists are left to their own devices and have moved instinctively toward *direct creation*. They are restive under the practice of "copying a copy", as Plato described the mere portrayal of nature, for, as he believed, nature herself is attempting to evolve of "copy" perfect archetypes in the Divine Mind. This is an important concept to which we will return. Modernist artists appear specifically to be attempting to eliminate the copying stage and to attune themselves to living rhythms. Their efforts to achieve spontaneity of expression, whatever this requires in relationship of form, is another indication of the urge toward direct creation. The need is felt to indicate more directly nature's reality at other levels than that of the usual visual perception of physical forms.

Art for its own
Sake

Such efforts doubtless are in a primitive stage because to advance them, another training must be added to art training. Artists generally lack a working knowledge, the outlines of which should be recognized and experimented with. This is a knowledge of the super-physical realms where consciousness grapples with reality, and where discrimination is more demanding as to what is real and what unreal. Spontaneous, direct creation is possible, but as great artists know intuitively, this requires a lawful obedience to cosmic rhythms and harmonies, a trained discipline in austere selflessness, simple purity of life, an understanding reverence for all forms, and a compassionate tenderness for them, whether physical or superphysical. Short of these requirements, any search for freedom from imitation becomes confused with lower impulses that result in comparatively inane and frivolous work. Normally, artists seek to give meaning to their times, the environments they reflect. If these emphasize only that which is superficial and destructive, Art will tend to mirror this in agonizing ways. Whereas, if a true estimate of the majesty and power of Art were to be realized philosophically, this idealistic activity of mankind would approximate more nearly its higher function to balance civilization and inspire its swifter growth to great heights.

Ours is a crucial time when Art must break with and no longer be influenced by purely materialistic philosophy. The trend of Art and the search for symbols expressive of universal life are thrusting upon the artist the necessity for seeking and loyally serving a philosophy, truly

Need for Integra-
tive Knowledge

indicative of the realities with which he associates. That necessity is fulfilled in important ways in the meeting of Theosophy and Science.

Art may be defined as the creative use of form with economy of force to record extraordinary insight into environment and its relationships. It is the testimony of individuals who are suited by temperament and the devotion to Beauty to step up the normal ranges of consciousness in moods of inspiration to higher frequencies that make possible transcendent glimpses of their surroundings. Their experience, the perception of Beauty, awakens in a vivid sensuous awareness of the physical world and passes at full tide through emotional and mental stages to a "beyondness"—across the frontiers of familiar horizons of consciousness toward a greater reality of unity and intuition. The fusion of normal with supernormal ranges of consciousness is productive of those extraordinary bursts of energy and perception peculiar to artistic genius.

Thus, the way of Art becomes for its devotees not only a cultural preoccupation but a method of swifter individual unfoldment of latent faculties of consciousness, therefore a path to reality. The path of Art in its higher ranges is certainly as true a path and as exacting as the path of holiness, or the path of occultism. It is in this direction of the ultimate of such a path that we may approach key ideas fundamental to any meaningful philosophy of Art. These key ideas are certain to be consonant with the advancement of modern Science, and to receive their vitality of purpose from a wisdom about super-physical levels of being that indicates and governs the direction of growth. It is because Theosophy restates an ancient wisdom about these matters that the greatest philosophical good can result to Art from the meeting of modern Science and Theosophy.

Pursuing this viewpoint, all informed people drawing upon the classified testimony of modern sciences understand that the theory of evolution is indubitably based upon demonstrable facts that affirm it to be a more or less fortuitous struggle and purposeless. Theosophy illumines this circumscribed knowledge by introducing the idea that *involution* occurred first, consequently that evolution unfolds in planned cycles because of latent potentials, a process which is not yet nearly completed. Human beings, for example, have been long ages evolving the body with its five senses, but that equipment is not yet complete and it is reasonably pointed out that there are other senses yet to be unfolded.

Proceeding with this idea in a direction that is philosophically useful to Art, one can imagine that the first entities to contact the physical plane must have done so by the sense of touch, and because of this contact they must have strained to listen, willed to hear, and evolved in time the hearing apparatus. With hearing, they must have striven to see, and created the organs of sight. The discriminatory sense of taste logically follows, and lastly the most subtle of all present senses, that of smell. Such at least appears to be a logical sequence of evolving senses in animal forms.

Then followed the long course of evolving humanity and its civilizations wherein the evident growth toward consciousness of unity has been accelerated by the organization of commerce, transportation and more rapid and extended inter-communication. In its modern phase the use of telephone, radio and other instruments which penetrate the barriers of time and space, is tending to develop another sense, that of clairvoyance. Beyond this development logically to be unfolded, provided man has the faculty latent, is a sense of instantaneous intimate contact across the world, that of mental telepathy. All these senses have begun with and are extensions of the basic sense of touch.

Religion, Philosophy and Art are interpretations of life understandable in terms of this limited sense-perception, interpretations no longer adequate. For example, until a few years ago only the scientists and scholars in their laboratories and study halls seriously considered the nature of ultimate physical reality, only they observing the surface of a table were fully aware of its totally illusory appearance, that the surface was in reality composed of billions of molecules, atoms, and electrons which in turn are but electrical impulses whirling at incredible rates of speed. Today because of the atomic bomb, nearly everyone is acquainted with this general idea of the ultimate structure of physical matter. We cannot examine its structure directly with the senses, but we possess an instrument, the mind, with which to deal with it. Intelligent people subject all phenomena to a process of reasoning and mental observation. We have grown accustomed to placing upon the mind the burden of perceiving and interpreting reality for us. Yet to depend completely upon the mind for such perception and understanding is to place

our reliance upon an instrument subject to endless distortions and interferences.

This is evidenced, for example, by the numerous experiments that have proven a hypnotized person may be made to see an object which is not present, or what is more confounding, fail to see one that is standing before his eyes. Thinking of this phenomenon in scientific terms we understand that light waves are reflecting from the surfaces of the object and impinging upon the retina of the subject's eyes; impulses are travelling along his optic nerve to brain cells and these in turn are stimulated. There should be an image of the object in the hypnotized person's mind, but there is none. The will of the hypnotist has interfered and this force of will is therefore stronger than the actual sensation of sight.

When we remember that the hypnotist's will is self-generated and conveyed by thought impulses, we must assume from this

Extra-Mental Perception that everyone's mind is continually distorted at its own subtle level by a variety of thought-interferences, especially any that are generated by self-hypnosis. A deeper and more reliable insight into reality must await the alerting of consciousness on some less obstructed and harried plane of awareness. Apparently the general course of evolving consciousness is in the direction of such levels. If it is true, as Theosophy maintains, that humanity is in process of an orderly evolution which entails a gradual but continuous groping forward of intelligence to freer and ever more extended ranges of awareness, it must also be true that there are universal experiences that tend to awaken every individual unit of consciousness to a "beyond". Certainly there is one inescapable and universal experience that expands consciousness. It is the exalting experience of love in its many gradations. Perhaps of profounder significance is the stimulation of the imagination exerted by the experience of love. This suggests that imagination is of highest importance, and that an important effect of human love, in addition to all others, might be the further development of the power of imagination. For imagination awakened in connection with the experience of love stimulates a yet higher faculty, the intuition. It may also be observed that this deliberate use of the image-making function gains in power in the measure that it employs knowledge and reason. Art and Science thus are closely related, because factual knowledge and scientific, reasoned method are essential to successful observation and expression.

Imagination
Wrongly Used

All forms of Art are motivated principally through love and imagination. The artist has developed a faculty for identifying his consciousness with the mood or essential nature of any creature or form he wishes to portray. This faculty of identification results from a kind of impersonal, universal love. Science, on the other hand, deals with factual knowledge. When imagination is excessively stimulated and is undisciplined by factual knowledge, it results in mere fantasy, lawless and destructive in its nature. Probably no civilization before ours has experienced so relentless a stimulation of the human imagination. To a great extent this development as now employed is culturally decadent because of the high percentage of appeal to lawlessness and violence, forcing the imagination into the service of the degraded elemental life of greed, hate and fear. Modern Art is troubled by the dilemma it faces of choosing to express fantasy or meaningless knowledge.

Imagination used
with Knowledge

The evidence of deeply ingrained violence in the world today, which truly creative Art can aid in correcting, emphasizes the pressing need of recognizing Art in its true position as a bridge between Science and the ancient wisdom of Theosophy. If the artist's use of an awakened imagination (love) coupled with knowledge stimulates into being a higher intuitive faculty, there exists in his field a demonstration of the most useful employment of all knowledge, evolution-wise, so to speak.

Every individual is concerned with discovering the knowledge which scientifically reveals to him the laws governing his environment, because obeying these he may live a successful and harmonious life. But governing physical law from some more remote level are those universal principles which Theosophy elaborates and which are applied in all great Art. A philosophical approach to these principles is the use of logical thought deepening to meditation and contemplation of scientific knowledge and its links with the ancient wisdom in a search for Ultimate Reality, more specifically, the source of life. At some inner level of being, every individual, it must be presumed, is necessarily in contact with this source. To mount toward it successfully with full consciousness would yield awareness of the essential meaning of life, its purpose and direction. The service of this purpose, consciously or unconsciously, must be the aim of all great Art.

Quest for Basic
Reality

One may mentally set out upon such a quest in a time of quiet thought, using, to begin with, his knowledge of physiology in an interior exploration of the self for the source of life. Achieving an abstract detachment from the physical body one would mentally review the various wondrous processes of the physical organism, reaching in time that ultimate unit of physical life, the body cell. Using a knowledge of bio-chemistry one would focus attention in the tiny area of the cell. As perception becomes ever more microscopic, one would reach in orderly stages the molecular and atomic worlds. Shifting to the knowledge of nuclear physics as to the nature of the atomic world, one concentrates upon the whirling energies of electrons, protons, neutrons and the relative emptiness of space in each atom—for example, the hydrogen atom with its central nucleus said to be 100,000 times smaller than the diameter of the atom, with the remaining space filled by one electron whirling at such a speed that it can be perceived only as a cloud of energy. Dwelling upon this concept of the physical body and all forms in terms of atoms and their cosmic energies and upon the more recent and spectacular observation that this cloud of energy appears from and disappears into some mysterious beyond, one's search reaches a frontier of modern experimental knowledge and faces the unknown. The path of search has led into ultimate physical matter and at the furthest point has reached the electron, where the vital force of life eludes observation into a beyond.

Where will one now turn for the knowledge to use with imagination? The frontiers of scientific knowledge have been reached. Life's source is not anywhere in the physical world. Life appears to pulsate through the mechanism of the atom, energizing the physical world from some subtler level, invisible and beyond our reach. One must now resort to the likeliest hypothesis he can come upon dealing with that region.

Science and Theo-
sophy Meet

It is at this point that Theosophy and Science meet. Theosophy is recommended as a source of such knowledge and theory which we may venture to use with imagination in the continuance of the search. Suppose one now accompanies the electron from the physical atom into the realm immediately beyond, using Theosophical concepts and terminology. Theosophy has named it astral matter, made up of atoms moving at a much greater rate of speed than physical atoms. The energies of these two levels are interlocked and one may examine the concept put forward by Theosophists

regarding the ultimate physical atom to see how this interlocking arrangement is explained.¹ Proceeding now with imagination to enter the astral atom, one comes up through the atom and the astral forms in which consciousness is now dealing, and discovers that the form is substantial when consciousness is focussed there, and the energy of desire and feeling impels atoms and molecules to assume the variety of forms of that level of being. But once more a thorough search of knowledge about the astral level does not yield any final information as to the source of life, for the pulsations of energy appear into and disappear out of the astral world, as they do in the physical, from some region beyond.

Pursuing these pulsations of vitality through the astral atom one enters another atom moving much more swiftly, that of the mental world. Consciousness using energy at this level creates thought-forms in mental matter. Here in the mental body imagination becomes a reality; for instance, the theosophical theories being utilized inform us that whatever we visualize is actually created in mental substance, though such phenomena take place only upon the lower levels of the mental plane. Upon the higher levels is a focus of the essential intelligence of man, an immortal essence which is preoccupied with observing the phenomena of the lower worlds as these are imaged in mental matter. This self cannot be a source of life, for there are innumerable individual selves and they in turn appear to have emerged from some eternally creative source beyond the level of their manifestation.

Beyond the mental plane, as already indicated, lies the world of intuition. Any endeavor to reach it requires the imagining of what it is like when one dwells in full consciousness in a region where all barriers that shut off one self from another disappear, where the essential life of all creatures exists in a unity whose principal quality is that of universal love and bliss. Mystics, seers, and sages have all testified to such consciousness.

It is from this level must stem all of those cultural influences that inspire the nobler ideals and illuminations of man, for here every unit of consciousness becomes identified with all others in a profound interior awareness. If one continued to use theosophical theory in an extension of this search, it is not even upon the cosmic intuitive plane that one may expect to find the realm from which all life proceeds.

¹ See *Occult Chemistry*, chapter on "The Ether of Space."

Beyond is a mysterious world of power where may be glimpsed on a level of eternal consciousness the *archetypes* of all that is to be and can ever be throughout evolution. Ultimate Creative Awareness Consciousness touching this realm must glimpse that which is-to-be when perfection is achieved, for the Archetypal energies natural to that realm play over all creation, drawing every form toward some divine far-off achievement of perfection. Imperfections are seen as such because consciousness is aware only of fragments. Contact with archetypal energies must be judged as one of the supreme goals of the Artist-philosopher. Were he to reach this goal, direction as to evolutionary purpose would be glimpsed in every form to be portrayed and therefore definition of laws governing in that direction. The Artist would have reached in his awareness a stable and changeless guiding point fixed in an eternal source of life. An arc of consciousness in him would link physical matter to a world of Archetypes.

The technique of creating this arc of consciousness, then, is to push out to the frontiers of knowledge and then by coupling imagination with the most reasonable theory one can discover as to what lies beyond, to press confidently onward, searching patiently for and awaiting the intuitive glimpses of truth that will come. This is the way of the genius, the artist, and all pioneers of thought who grasp and reveal new knowledge for mankind.

Summing up this effort to indicate briefly an application in terms of Art of the meeting of Theosophy and Science, we first have used the pertinent knowledge with which Science provided us and have drawn then upon theosophical theories. Combining these we understand that upon lower mental levels are actual images in mental matter, created there by the impulses coming up from the physical world through the sense channels, but these images are distorted by inadequacy of perception and therefore do not present the deepest reality behind the phenomena of the physical world. This reality is more clearly revealed as higher faculties of consciousness come into operation. These are the awakened intuitions, illuminations and inspirations which pour down upon the images of the lower mental plane from the higher regions, sweeping away the veils of illusion to reveal in clear glimpses the real amidst the unreal.

The opening of these higher faculties of intuition, illumination and inspiration is a process of growing in lawfulness, Universal Principles contacting the influence of divine archetypes that are acting through fields of law upon every plane. These fields of law are

superseded and governed from subtler regions by Universal Principles, such as harmony, order, unity, rhythm, balance, etc. These principles are all innate in nature and can be observed as everywhere obeyed. When, as artists do, we directly associate ourselves intelligently and sympathetically with nature, we tend to become conscious of these universal principles and thus by association to become aware of their ruling influence over any laws which are recognized.

An essential function of Art is to afford its spectators a familiar association with universal principles, because Art necessarily employs them. In a work of art, for example, we readily perceive unity as an essential principle without which there can be no expression, only chaos. This primary principle in Art parallels a basic principle in Theosophy, that everywhere there is one Life, that nothing in the universe exists or can exist but the one Life which pervades all space, manifesting on different planes through the garments of matter. Life descends into matter, evolving through it to fulfil its latent possibilities, an idea incidentally which is the reverse of that held by the preponderance of modern thinkers. If we fail to perceive unity in nature and life, it must be assumed that our penetrative faculties are at fault because unity is demonstrably a universal principle.

Another principle necessary to any work of Art is an ordered plan of composition. However esoteric the plan of a cubist painting may be, if it is intelligible at all a plan of some kind has been necessary to organize the canvas. The principle of order must pervade the whole artistic effort. Similarly, Theosophy points out that life itself is liberated through an ordered plan of unfoldment, latent in every form throughout the universe and known as the Plan of Evolution. Implied throughout the cycles of life's manifestation is the principle of order. All forms are unfolding from something to something else in an orderly process, and to intuit, to interpret, to envision in orderly sequence the next stage of unfoldment for any form is to create truly and co-operatively with nature. Order must be perceived and obeyed.

Rhythm is another principle in nature. All works of Art also depend upon this principle for their vitality. Rhythm in Art is movement expressed through periodicities of measurement that bestow vitality. It is a reflection of the eternal cyclic recurrent movement of life into and out of form. Rhythmic cycles and their laws govern the entire process of aeonic evolution.

Again, there is the principle of equilibrium or balance. No expression of Art can succeed without it, and likewise it is perceived as a law of cause and effect universally active. Resulting from an intelligent obedience to law is a blissful consciousness which is the principle of Harmony in action. Colors may be placed on canvas or tones juxtaposed in music, but unless they be related in some scheme obeying a natural law of arrangement the state of harmony will not prevail and the effectiveness of the whole will be lost.

Further, we may observe that innate in every work of art is its inner meaning, its revelation or message, invisible and primordial, which in the beginning exists as archetypal idea and is successfully expressed to external perception in accordance with the degree of the artist's obedience to truth and mastery of laws governing his medium. Through his Art a relationship between visible and invisible is established; from an ideal there has been a descent to idea, to emotion, to fact, and from fact in a work of Art an appreciative audience may be moved to emotion, to idea, to ideal or archetype. This descent from an archetypal world, a plane of unity and unobstructed perception, to an outward world of physical fact together with its enticement of the beholder's consciousness upon a return journey to the archetypal world is the high function of Art.

Thus through the use of scientific knowledge and reasoned thought in connection with the wisdom and concepts of Theosophy, the artist may reach levels of sublime vision and the discovery of True Purpose in his work. Art becomes, then, a superior usage of the bridge of consciousness from unreal to real—a bridge that both Science and Theosophy support—and where indeed they can meet and can be applied to the greater service and glory of mankind.

AND WHAT OF ART ?

BY CLAUDE BRAGDON

ALTHOUGH seemingly not germane to the subject of this volume, "Where
Theosophy and Science Meet", any book purporting
to deal with the trend of the times and the movement
of consciousness should not leave Art out of account.
It is vitally related to Theosophy and to Science also,
however little it may appear so from a merely cursory view.

That order of human activity which goes by the name of Art
(though the Greeks had no word for it) should be con-
ceived of as an ever-flowing tidal river fed from the
excess creative energy of a people or of a period—like the seminal fluid,
generated by, and in turn generating, sexual love. For just as this love
insures the continuance of a race, so does Art insure its deathlessness
in the memory of mankind. Campaigns and conquests are forgotten;
but a nation which fails to achieve its apotheosis in beauty, perishes
unhonoured on its rubbish heap.

For one function of Art is to preserve for future generations a mirror-
image of the consciousness of the people which produced
it—"To show the very age and body of the time his
form and pressure". By this index alone it is possible
to trace with certainty the fluctuations of the spiritual tide. For all truly
great Art is something beyond and above the expression, in terms of
beauty, of man's habits, tastes, and beliefs; it is the presentation, through
a chosen set of symbols, of his spiritual philosophy, his confident hopes
and inspired dreams. In this high sense our Machine Age is æsthetically
sterile, because it is without a spiritual philosophy, confident hopes, or
inspired dreams. Therefore its nearest approach to true æsthetic expres-
sion is, all paradoxically, in the field of invention, engineering, and manu-
facturing: A steel bridge, an automobile, an aeroplane, all products of a
concerted effort toward space-conquest, which is the dominant note of
today, their forms rigidly determined by their functions and expressive

of those functions, come nearer to the true ideal of Art than everything which goes currently by that name.

Machine Age But with the unification of Theosophy with Modern Science—which it is the aim of this book to chronicle—the Machine Age might discover for itself a spiritual philosophy, confident hopes, and inspired dreams; it might again concern itself with themes commensurate in dignity and importance with those which inspired Egyptian, Greek, Christian and Buddhist art. Because Theosophy is only a restatement, in terms acceptable to the modern understanding, of that same *Ancient Wisdom* which constitutes the inner content of every world-religion and—did scientists only know it—of Science itself. Lost sight of for the past few hundred years, this Wisdom is even now renascent in Theosophy, as the Machine Age hurries toward its climax and its close.

Mechanization of Mind and Soul For during that Age, the conquests of Science, capable of delivering man from most of the hardships and hazards to which he is subject, instead of being used for the conservation of human life, have become agents of enslavement, exploitation and destruction. The suicidal results of such perversion of scientific knowledge and achievement in the wholesale slaughter of modern warfare, in starvation in the midst of plenty, in the mechanization of man's mind and soul, are becoming now so glaringly apparent even to the unthinking as to stir up a kind of counter-revolution of ever-growing intensity. Along with this reversal, and as a consequence of it, there should come some new influx of spiritual light such as dawns in the universal human consciousness at those times when the soul, awakening from its age-old slumber, comes again near the surface of life.

New Forms of Art Spiritual fermentation of this order, of which history provides many examples—in Egypt, in Greece, in Mediaeval Europe, and in India, in China and Japan following the introduction of Buddhism—must needs find an outlet in Art, even in new forms of Art, as was the case in France during the rise of Gothic architecture, when the windows of Chartres and Amiens gave a new glory to sunlight itself.

Revolutionary Art When today we use the term "Modern Art", we can mean only Revolutionary Art—Art, so to speak, in explosion. For there is a world-conflict going on in this field, just as in every other; the old crystals are being broken up. Take the case of Architecture, for example, the most "static" of all the

arts. In common with all the rest it is undergoing profound and revolutionary changes underneath our very eyes, though for the most part we are blind to them.

The rigid economy made necessary by the depression, operating in conjunction with that stern, rationalistic attitude of scientific efficiency developed during the World War, has had the effect of sweeping away all "applied architecture"—cornices, columns, pilasters, and the like—which serve no useful purpose, but which used to be considered necessary on purely æsthetic grounds. Except in the field of Governmental Architecture, which represents the conservative and traditional—and sometimes even there—the engineer and the technician now dominate the profession, in consequence of which the idea of a building as a working machine has replaced the idea of it as a work of art. Not that it makes no pretence to beauty, but it is a beauty of a different kind—the beauty of *utility*, of perfect adaptation of means to end, by reason of which "every increase

Beauty of Utility in fitness is an increase of beauty". The "battle of the styles" has ceased to be a vital issue and is now important only to schoolmen. Eclectic architecture has been largely superseded by so-called "functional" architecture, the guiding principle of which is that the function should determine the form, and the form express the function. It will be interesting to trace the genesis and growth of this idea, which is revolutionizing Architecture.

It appears to have been first formulated and practised by Dankmar Adler, an eminent Chicago architect and engineer, who in the year 1887 determined the form of the Chicago Auditorium (the largest theatre in America up to that time) strictly in accordance with its function as a place to hear and see. The rise of the floor from the orchestra pit to the back was determined by acoustic principles so that the direct outward movement of the sound waves would encounter every part of the floor. This, together with the shape and disposition of the reflecting arches above, gave the interior its architectural character, so different from any then-existent opera house, and later imitated in New York's Radio City Music Hall. The Auditorium was distinguished for its acoustical perfection and the ease of vision from every seat. Frank Lloyd Wright said of it: "To this day, probably, it is the best room for opera, all things considered, yet built in the world".

The Auditorium was the joint production of Adler and Sullivan, for Adler inspired his gifted young partner, Louis H. Sullivan, with this idea of

functional architecture, with the result that together they continued to produce buildings of an altogether novel type. Frank Lloyd Wright, a draughtsman in their office, making "Form Follows Function" his slogan also, when he began the practice of Architecture on his own account, applied the principle in his own individual way. These men exerted small influence on the architecture of their own country, then given over to the schoolmen, with their imitations of the historic styles, but Sullivan and Wright caused what amounted to a revolution in contemporary European architecture, and this in turn had important repercussions in the land of their birth. This came about in the following curious way:

The commissioners from European countries sent by their governments to report on the World's Columbian Exposition held in Chicago in 1893 were not interested in its architecture as represented by the famous "Court of Honour," for this was of a sort with which they had been long familiar, and of which, truth to tell, advanced Europeans were growing a little tired. Louis Sullivan's Transportation Building, however, relegated, so to speak, to the Exposition's backyard, excited the admiration of some of these commissioners, because it was so unlike anything they had ever seen. Not only was it beautiful in a new way, but it was the only building on the grounds which was not more or less an imitation of something else. This one alone *looked like what it was*—a well-designed and gaily-decorated enclosure, of no particular permanence, for the housing of exhibits only as long as the Fair lasted. In other words, here was *functional* architecture, in comparison with which that which constituted the Court of Honour appeared both pretentious and false. The commissioners were so impressed by this, and by Adler and Sullivan's Auditorium, Schiller Theatre, and other buildings in Chicago, that they took photographs and drawings of them back to Europe for exhibition and for use in museums and schools. Some years subsequent to this, books of Frank Lloyd Wright's drawings of his architectural work were published in sumptuous editions in Germany and in Holland, and widely circulated. The thing happened at a time when, although American architects, almost without exception, remained incorrigibly eclectic, European architects were beginning to revolt against the traditional styles, and were on the lookout for new forms, materials, and methods which should express the modern taste and the modern temper. These hints they found in Wright's houses. European architecture is of necessity *horizontal*—it

European Architecture revolutionized

•
Revolt against traditional Style

knows not the skyscraper—and Wright's houses, built for the prairies of the Middle West were horizontal too, thus providing for these men the sort of model of which they were in search.

In this way was inaugurated that new manner of building which Sheldon Cheney has named "The New World Architecture". Having set its stamp on a large part of Europe, it found its way back to the land of its origin, America, to which European architects still looked for inspiration and guidance, because it was the land of the machine, and they had adopted the machine as their archetype. Accordingly, unlike Sullivan and Wright, they stripped their constructions bare of ornament. LeCorbusier singled out our great grain elevators and manufactories for admiration because built solely with an eye to efficiency and economy, the form determining the function in every case. He cites the aeroplane and the ocean liner as examples of a new kind of beauty achieved solely by these means.

The outstanding merits of this New Architecture are these: its practicality, its competence in fulfilling the imposed requirements, its employment of new materials and building methods, the elimination of needless expense and useless labour, and its general effect of cleanness, lightness, brightness, and the absence of all "stuffiness". On the other hand, it is usually lacking in grace and charm; there is no appeal to the æsthetic sense or to the imagination. One reason for this is that it abjures ornament as something alien to its chosen archetype, the machine. It is true that Louis Sullivan, who well deserves the title of the first architectural modernist, declared that it would be greatly to our æsthetic good if we would refrain from the use of ornament for a period of years in order that our thought might be concentrated acutely upon the production of buildings "well formed and comely in the nude". Nevertheless, ornament has always heretofore been a necessary concomitant of every architectural style, and was so recognized by Sullivan himself, not only in his own practice—for he was one of the greatest masters of ornament who ever lived—but in his philosophy of architecture as well, for he says: "We feel instinctively that our strong, athletic, and simple forms will carry with natural ease the raiment of which we dream, and that our buildings thus clad in garments of poetic imagery, half hid as it were in the products of the loom and mine will appeal with redoubled power". Sullivan's lyrical spirit would have had scant sympathy with those pedestrian practitioners who would

Efficiency and
Economy, the Aim

Beauty not to
be ignored

make of architecture a purely utilitarian art, admitting no beauty other than that which resides in the perfect adaptation of means to ends. The phrase "Form Follows Function" did not sum up Sullivan's entire thought. His archetype was not the *machine*, but the *organism*, and in organic life the element of vicarious beauty—witness the entire vegetable kingdom—appears to enter in.

Ornament is indeed the *flower* of architecture, blooming only after root, stalk, leaf are well developed, and blooming not at all if the plant be not vigorous enough to support it. For ornament represents excess of life, excess of beauty—the spilled wine from a cup over-full. Ornament is related to structure as song is related to speech, as dancing is related to walking. Watch a child walking along the street: presently the tide

Ornament, the
Joy of Life

of life becomes too powerful for that manner of locomotion, and the walk becomes a hippity-hop—a dance.

Expressing as it does a superabundant vitality, this dance corresponds to ornament. To the self-styled Functionalists ornament is taboo because they have so little joy of life that they do not want to dance and sing. Were that lyric, Dionysian spirit in them it would express itself in the work of their hands as ornament.

Joy is not in them, nor in the other devotees of pure rationalism,

Mind-ridden

because they have no "spiritual philosophy, confident hopes, or inspired dreams". So if we discover in this

New Architecture, in spite of its straight thinking and technical competence a certain aridity and sterility, it is because the times are like that—*mind-ridden*—the soul not having yet risen to the surface of life.

But this Modernistic Architecture of the Machine Age has at

In Tune with
the Times

least the merit of being in tune with its spirit—utilitarian, competent, unsentimental, scornful of mere prettiness—and on that account it is an improvement upon the

Architecture which it is so rapidly replacing, which though superficially more pleasing abounds in falsehood and pretence. And the same thing is happening to all the other arts—their very stridency proclaims that they are sounding the modern note at last. If Jazz and "swing" music takes popular precedence over that of "Bach, Beethoven and Brahms" it is not because it is more beautiful than theirs, but because it is in tune with these times and they are not. In painting and sculpture we discover the same thing happening: Brancusi's elemental forms in polished steel and brass, and Archipenko's archetypal bronzes are the

only sculptures which seem suited to the new type of stripped and sanitary interior; as the paintings of Matisse and Picasso seem best suited to adorn its walls. The world-mood of the moment has at last found momentary expression in the work of men such as these, bold enough to emancipate themselves from outworn conventions no longer adequate to express the subtle and quick-moving spirit of the times. The Machine Age here finds objectification in Art.

Science has at last invaded the sacred chamber of Art. It is the use of the scientific method and the utilization of scientific means as applied to the problem of "shelter" which has created the New Architecture rather than the influence of any one man or group of men. Such things as cantilever construction, structural glass and stainless steel *forced* the development of new architectural forms. These will doubtless crystallize into something no less definitely a "style" than the historic styles of the past.

Music is being, and will increasingly be, drawn direct from the vibratory ether without the intervention of the dozen different instruments which constitute the modern orchestra—the application of Science to this art in the mere matter of sound production, transmission, amplification, is practically limitless. The sculptor who does not call to his aid science and mathematics will find himself outdated, and the painter who ignores the chemistry of pigments, spectral analysis, polygonal synopsis, and such-like scientific matters will be left at the post. But the aid of Science to Art is limited to ways and means of expression. With that search of the soul for beauty which Art *is*, Science has nothing to do. Its own quest, which is for the truths latent in phenomena, and the utilization of those truths, is perhaps not fundamentally different but is arrived at by a different route, and through the use of a different faculty, the reason, in contradistinction to the intuition, or the creative imagination, which is the artist's *sine qua non*.

The aims and ideals of modern Science may be stated in the very phrase which Madame Blavatsky chose as the slogan of the Theosophical movement: "There is no Religion Higher than Truth". This would indicate an affinity, not to say an identity between the two which with the advance of Science during the past few decades is becoming increasingly apparent. But Theosophy holds within it the promise and possibility of a rich spiritual life, which is something that Science, from its very nature,

Aid of Science
to Art

Intuition, the
Artist's *sine qua non*

Spiritual Life, the
prime Requisite
of Art

cannot possibly give, although once given, it can vastly enrich. The prime requisite of great art is a rich spiritual life; until we have this, we shall lack the other. Thus the union of intuition and reason, the fusion of Theosophy and Science, the "Marriage of East and West" is the consummation devoutly to be wished. Science now lacks the inspiration, the "sudden light" which its own independent confirmation of the Theosophic Scheme would give, while Theosophy, without this confirmation, is bound to be suspect to the type of mentality which will accept nothing until it has passed through the alembic of scientific analysis. But life viewed in binocular vision through the twin lenses of Science and Theosophy, focused to form a single image, would give that image depth, reality, volume, higher by an entire dimension than the image which we have. Art, striving to reproduce this image, as it needs must, would recapture the wonder, mystery, and transcendence which characterize the great art of past ages, the product of peoples possessing a spiritual philosophy, confident hopes, and inspired dreams.

For when the soul rises to the surface of life Nature becomes an ever-living scripture, a kind of picture-writing of the truths of spiritual experience, projected in recognizable symbols, rather than a field for scientific investigation or a storehouse to be ravaged for man's material needs. This in a measure accounts for the art-flowering in the wake of every spiritual upheaval, it is a reassembling of these symbols in the effort to express the supersensuous world in terms of the sensuous.

By every sign such a spiritual upheaval is now due, and will be signalled and signalized by that rapport between Western science and Eastern transcendentalism which it is the purpose of this book to call attention. For the thing has already happened: it is only the *recognition* of it which is delayed.

In what new art-form will this marriage between East and West be celebrated? In an art of light; because just as definitely as music—the art of sound—was a *seeking*, so will colour-music—the art of light—be a *finding*. For light is the visible symbol of an inner radiance, and colour is the sign-manual of joy and happiness. Science has for the first time in the history of the world made such an art possible: such an art is "Where Theosophy and Science Meet".

YOGA: ART OR SCIENCE?

BY RUKMINI DEVI

IN this book dedicated to Theosophy and entitled "Where Theosophy and Science Meet", it is truly important that Art should be included. Few realize that Art is a great and as yet unexplored field of Theosophy. To many Theosophy is just a set of teachings. What are those teachings? Are they above and different from Science, Art, Philosophy, or Religion?

Theosophy, the white light shining above, on passing into the denseness of our world becomes the spectrum, embodying like a magnificent opal the whole range of colours. If one turns it this way it is Science, and another way it becomes Art, it becomes Yoga, Music or Dance. One might almost say that Theosophy and Science do not meet, because Theosophy is Science and Science is Theosophy, for what is Science after all? In the world today the ordinary individual confuses the word Science with experimentation and discovery. The great plan exists and man with his intelligence and capacity has touched a fringe of the plan, from which has developed what we call Science which has so far mainly concerned itself with the outermost workings of nature's laws. Nature has shown portions of its plan to man as he has begun to manipulate the body of nature, which is matter. As man experiments, nature reveals itself and man is surprized at the power, the result that he can produce. He directs these forces of Nature into various channels of activity and knowledge. This is great work indeed, and it satisfies the mind of man. His mind-body is stimulated; therefore it becomes more and more creative and the urge to create is satisfied. Satisfaction here is no static state, for the mind of the true Scientist is at rest only in the continuous movement of creativeness.

Through Theosophy one learns not the part which is now called Science but the whole which is the great Macrocosm, the life force in operation, with its universes, its laws, its order, its Plan; all of which are

represented in man, a complete being. This real Science which leads through knowledge of the operation of evolutionary forces to knowledge of the Plan is Theosophy in its true form—Occultism. It is Occultism that lies behind all thought, all philosophy and all manifestation. It is this Science alone that will help us to understand the universe and man, Art and present-day Science. If we understand Occultism we begin to realize the nature of Yoga, for what is Yoga but true perception in the light of deep experience, the experience of body, mind and emotion. When there is complete attunement between the bodies of man and his innermost being with a perfect understanding of all the functions of the great Plan both within him and without, there is the true Yogi.

Theosophy as Occultism divides itself into three categories in the world of today and in its everyday expression is :

(1) True Science—Resulting from the relationship of matter to a mind which is tuned to a perception of the Cosmic principle. (2) True Art—Resulting from the relationship of matter to an emotion tuned to a perception of the Cosmic principle. (3) True Religion which includes philosophy, common to both the above, not dealing with the Nature around us as Art and Science both are, but the Nature *within* us. Therefore its manifestation emphasizes conduct, character, aspiration.

For the complete Man, the Yogi, these three are all aspects of the one great Principle of life, and it is easy to see how all finally meet in one Consciousness. All three have to find the higher mind in order to discover Truth and Beauty. Really great Scientists, Artists and Saints have all touched the same source. In the West often the Scientist and the Artist meet. It is a well-known fact that great Mathematicians are generally Musicians, though not always in practice. In the East this is equally true of today when the mind has turned to Science rather than to Religion. But until lately it was the Artist and the Saint who met, for in the history of India one sees the land filled with the Spirit of Religion but as expressed through Art. Great Saints have expressed their Cosmic devotion through Music, Dance and Poetry.

On the other hand, when man is expressing the lower emotion and the lesser self, then Science becomes desecrated by the dry mind that merely distracts from Truth, becomes cruel, practical and destructive. Then Art becomes sensual, vulgar and cruel through the lower emotion. Religion becomes an empty code of behaviour, narrow, superstitious and cruel, the antithesis of the highest Truth, compassion.

Those great Beings who have achieved, like the Lord Buddha, Sri Krishna, Zarathushtra, Sankaracharya, Christ and others, are therefore those who have become within themselves a living harmony of light, colour, sound and rhythm, thus becoming one with Nature, the mother of knowledge.

It is very easy to understand evolution by understanding these principles. Today the Scientist even without knowing it is attaining to Cosmic Consciousness by applying his mind to the forces of Nature. (He wants to achieve a specific object in the material world and must therefore learn its laws, and as he goes deeper into Nature's laws his mind must become deeper and less personal. It is thus that he unconsciously moves toward Cosmic Consciousness.) In the ancient days in the East, the Yogi or the great Scientist translated Cosmic Consciousness into mind language and also into the direct manipulation of the forces of Nature, working consciously from the inside out, instead of unconsciously from the outside in.

Today, the Artist is trying to express the urge toward Cosmic Consciousness, which is the real urge behind all creative effort, through the mind, and this is where modern civilization is retrograde, and why it is unable to produce truly great Art, Art which will outlive the civilization itself. The Artist has lost his creative genius because he has lost his instrument, emotion. Art has not made as great a progress today because the whole aim of Art, whether the Artist knows it or not, is to attain cosmic consciousness through emotion in union with Nature. Not very long ago in the West great Artists achieved a high state of consciousness through sound, rhythm and form as did Bach, Beethoven, Wagner, Leonardo da Vinci, Fra Angelico, and others. In ancient India, the Yogi who was the great Artist brought Cosmic Beauty through the language of the heart in harmony with Nature in her manifold expressions of sound, rhythm, colour, line and touch.

No wonder then that a great Yogi was the embodiment of all Knowledge and Beauty. The most marvellous example of this is Nataraja, who contains in Himself all forms of expression. He is the inspirer of Patanjali's Yoga Sūtras, He is the inspirer of Bharata, the great Rishi who gave us the gift of Dance and Music. Being an embodiment of emotion and mind He finally, above all, becomes the Compassionate One, the essence of Oneness and Universality. He is the example to the world today of not only what an Artist should be but what the civilization should be. It

is because mind and emotion at their highest are one Consciousness that a great Scientist and a great Artist are so similar, both in depth of experience and in the quality of their being—unless they are of the lower order, for the acknowledged great are not always great, any more than the great are always acknowledged. In his high reaches the Scientist touches Cosmic emotion through mind, while the artist reaches Cosmic mind through emotion. For the perfect balance of expression both are necessary to the world, but for the ordinary man Art is as necessary as daily bread, for only through the refining influence of Beauty is it possible for man to evolve. Emotion is more easily aroused and it is a more normal expression than mind. It is through this that purity of body, of thought, of action, of motive is born, for in the vast majority of mankind, it is emotion which rules the mind and directs action, whether consciously or subconsciously. Hence a great Artist is inevitably a Yogi who shows the way, a messenger who can make the savage feel that Heaven is as near to him as to the Gods.

Art gives the message of this Heaven to the mind, emotion and body. The true Yogi of Art brings the Plan into incarnation as form, rhythm, sound, colour. The unfolding of the White Light becomes pattern, geometry, design, as well as colour. The great Painter becomes one with this unfoldment and through his identity, Divinity can express Itself. Through his emotion and imagination he tries to portray the vast unlimited spaces, heights and depths, into the limitations of his material and through the instrument of the hand. He moulds the universe with clay and marble. With his feet and body he expresses in movements of grace and rhythm the limitless beauty of the universe, the music of the spheres, the timing of events.

Bharata says that the Dance is the greatest of the arts and through His Dance Shiva brought salvation to the world. What is the significance of this? It is that the human body, being the most evolved of physical manifestation, is in essence the perfect instrument of the Divine, and has all the potentialities of becoming such an instrument, for man has in himself the power to become the Divine. While this is true there is no manifestation that is further away from beauty than man without his own will, effort and imagination. One can find beauty in Nature, in the trees, in light, in the animals because they have not yet parted from God in order to become Gods. Man has, and his body is crude, coarse with passions and habits far removed from Nature, until he purifies it by refinement.

Hence the Dance. The great rhythm releases in him the joy, the beauty, the grace and harmony of cosmic life. In the training of the body, in the moulding of its movement into Music made visible with Music's life-giving gifts of beauty and rhythm, the physical matter which is the body transcends itself. The physical becomes non-physical; the earth on which he dances becomes a veritable heaven. Mind and emotion working through his body, he conquers space. One understands from this how the description of Shiva as Nataraja can speak of Him as dancing through space, representing Cosmic rhythm, how the worlds dance, and how the moon and the stars become his ornaments. The harmony of the Universe has become the joy of the body.

Dancing is considered to be the complete Art because it is an expression of the complete man, a synthesis of all Arts. For from this physical Art comes the conquering and purification of body, emotion and mind. It needs the accompaniment of all the five senses, which are the five windows of the soul, and of all the other Arts. So again you find in Nataraja yet another symbol, the Damaru (drum), representing rhythm and sound. From this is born another Art of Arts, Music.

While hands and feet are instruments of rhythm, the ear is the attuner of this rhythm to the soul and therefore it craves for sound, melody, Music by which to draw the soul into union with rhythm. Rhythm and movement representing Time seek union with harmony and melody the manifestation of Eternity. Time represents the material or the body, while sound represents the soul, hence the union of rhythm and sound or Dance and Music is an at-one-ment with God. Therefore, the ear is not merely a means of hearing but an instrument of the soul in receiving the sound coming from the Damaru of Nataraja, the Cosmic Dancer. It is said that the first-born of the five senses is the power to hear. To me it is as if on the day of the birth of the child, he is sent out from the Heaven world blind, unable to speak, to think, or to move about, but as a compensation he is told, there will be one tiny fragment of Heaven he will not lose when he is born, and that is the power to hear. Who knows but each child is born with the sound of heavenly Music in his ears.

Music is the direct channel between Heaven and the heart. Of course, essentially, all Art and all expression is centred in the heart. As the earth and body are the materials for the Dancer, so are emotion and sound the vehicles of Music, for Music is the Dance of the emotional body.

To understand pure Music needs as great a concentration of the bodies as the Dance. Great Musicians have conquered space, time, and all forms of human experience through Music for which the finest instrument is the human body. It is interesting to see how the human body is built as an instrument for the Dancer, the Musician and the Yogi alike, how even in physical training there is similarity between the three. The Yogi is told that in deep meditation posture is of extreme importance, the spine being the rod of power connecting the human with the Divine. It is said that the Indian instrument, the Veena, is a reflection of the reality of a perfect body, but to us the Veena is a symbol before our eyes of the way the spine is the instrument of power, the symbol of harmony between earth and Heaven. So the Yogi takes earth through his meditation and unites it with Heaven. In the same way the spine is the instrument of sound for the Musician—even physically. The Musician has to understand posture and the use of the different ways of breathing and sources of resonance connected with the position of the spine. In the same way the Yogi as the Musician takes the earthiness of his emotions and unites with it the Heaven of all-pervading universal Sound. When this happens, for all who can understand as well as for the one who creates, there is born a joy indescribable and an experience of unity with the Divine which alone gives contentment, for during the experience of hearing pure Music, we forget ourselves and therefore we are in our natural element of being Gods. Humanity being fundamentally ruled by emotion, the purification, the stimulation and the direction of emotion is essential, as it is obvious that the right direction of emotion results in the happiness of all creatures, through the establishment of brotherhood between all creatures. It is only through the right direction of emotion that a Buddha or a Christ or a Krishna is born. These great Beings are not only the Yogis of Music but are its result, physical embodiments of pure emotion, the highest Music.

As dance is the conquering of the body, so is music the conquering of the emotions. To transcend both is Yoga, the sound that is physical calling to the eternal self in all. This shows that Art is not a mere expression, or an entertainment, but a Power which can both destroy and build. This is why Music in particular is used in every form of worship, in every Religion, in every temple. Music is used for war, for death or victory, love and devotion. It removes fatigue for the labourer, gives joy to the suffering, energy to the warrior and the highest flights of inspiration to the

devotee. In India, the land that has above all emphasized Spirituality, Music was used by every saint, philosopher and Artist, for each knew that it is possible through Music to lift the consciousness of an individual to the level of one in deepest meditation. Sound and rhythm are vibrations, they are power. This power can be misused as well as used. Passion also can be aroused through Music, as is too often the case in the world today. Sensuality can be strengthened through the Dance, for the lower passions expressed through the exhibition of the body itself are a potent instrument of evil. It is well known of course that Music is used for the stirring up of the lower passions. Hence the need for the Occultist to understand this force and lead the world by this most direct of means, Art.

Hence the necessity for character as essential to the Artist, for without it there is no will to direct the Art-Force along lines of transcendence. Here again we have the beautiful symbology of Shiva as the Yogi, the compassionate and benevolent One, who wears the ashes of the cremation ground on His body. He is the destroyer because He has burnt to ashes Kama—the desire-love. By His benevolence, He danced, He played the Damaru, from which came the first sound, the sacred word, and the Vedas, the source of true Music. Therefore Music and Dance as well as all the Arts have their source in the One. Truly Music is a gift of the Gods for in it are Science, Mathematics, Beauty and Harmony. In it are the Veda, the Dance. Since Art is a Divine force that lifts the crude vibrations of the lower matter, since Art is Harmony, it has yet another power, that of *literally* bringing earth and heaven together for through it alone can two evolutions come together, the human and the angelic. It is because of this that the Seers of the world have understood the value of Art, not only in everyday life, but in ritual, in temples, and in the teachings of all Truths.

• The Science of the Soul and the Science of living are one and the same. True Science is the knowledge of Power and the true Yogi is one who knows how to wield it. The symbology of Shiva is indeed a perfect one, but it is not only a Hindu symbol or an exterior symbol. Each one of us is Shiva inasmuch as we understand the principle, whatever may be the name we give Him. He is the sum, and more, of all the capacities of all human beings in all directions, for He is their source, their growth, and their perfection. A human Dancer uses arms and legs as He does, a Poet and a Musician use voice and instrument, an Actor uses costume and ornament of gold studded with gems. But in reality,

if the Spirit is the Master of Forms, then the artist is at one with Him—it is He who dances, He who sings and plays, He who is thus described :

आङ्गिकं भुवनं यस्य वाचिकं सर्ववाङ्मयम् ।

आहार्यं चन्द्रतारादि तन्त्रुमः सात्त्विकं शिवम् ॥

“ We bow to Him the benevolent One whose limbs are the Worlds, whose song and poetry is the essence of all language, whose costume is the moon and the stars ”.

In essence, true Art is the mediator between spirituality and everyday life. Though there are few Artists who show forth this great truth, still the world is blessed in these few and in the very creation of Art, which can be such a mighty force for the salvation of the world.

THE JOY OF SELF-UNFOLDMENT¹

By D. D. KANGA

THE majority of the people of the world seem to be living a more or less superficial life. There is no depth in their life. They are not even aware that there are deeper and deeper layers of consciousness to explore², to unfold and to live. If they become aware of these deeper layers of life and try to explore what they really are and get a slight glimpse of those subtler regions of existence, then they will have a deeper understanding of the laws of life and a profounder knowledge and experience of their own constitution. If they are *earnest seekers* of true happiness and peace and if they wish, or rather *will*, to live a life free from trivialities and superficialities, thrills and sensations, which seem to be the order and fashion of the day, then that will be the beginning of their living a different type of life and if they are sufficiently *daring*, patient and persevering, will *find* what they are *seeking* for, and having found it and experienced the contrast of their new mode of life with their former life, like to *share* it with others. In this new way of life of theirs, they will find a state of mind which will make them respond to the deeper chords of consciousness and take them nearer to the centre of their being where there is always true peace, joy and bliss. Their motto in life will then be *Dare, Seek, Find, Share*.

The emphasis throughout the book is on the living of a *whole* life. "Wholeness is holiness", nobility, culture, refinement. Living a *purely* intellectual life is not living a whole life.³ To live a whole life one has to pass beyond the level of the concrete, logical, analytical, critical mind.

¹ This is to be read after the article *The Thrill of Self-Exploration*, given in the previous part.

² See *The Thrill of Self-Exploration*, pp. 214-229, Part III, this Vol.—ED.

³ Intelligence alone is dangerous if it is not subjected to the intuitive or rational perception of moral values"—p. 153, *Human Destiny*, by Lecomte du Noüy.

Let us see what are the characteristics of this lower mind?¹

Wherever and whenever you see in a man or in a woman a tendency to a closed² mind as opposed to an open mind, a prejudiced mind, a narrow, restricted vision like that of a horse with blinkers on his eyes, or like that of a frog in a well who thinks that that is the whole ocean, or like that of the people in Plato's cave³, know positively that that person lives in the lower mind.

Wherever and whenever you see in a person a tendency to self-interest, grabbing for oneself, demanding of rights alone and not thinking of his duties and responsibilities, a tendency to quibbling, quarrelling over words and trifles, separativeness, exclusiveness, intolerance to the weakness and mental dullness of others (the weak should go to the wall), then know definitely that that person lives in his concrete, analytical mind.

Wherever and whenever you see in a person a tendency to domination, aggressiveness, use of force, exploitation, profiteering, hoarding, competition, know that that person lives in his lower mind.

Wherever and whenever you see in a person a tendency to pride, egoism, selfishness, ambition, false prestige, greed, lust, hatred, malice, cruelty, ugliness, intellectual callousness and pleasure in the wanton killing of animals and birds for sport, food or fashion, or when you see a person practising animal sacrifice on false religious beliefs, then know positively that the consciousness in that person is functioning at the level of the lower triangle. ∇ ⁴

On the other hand, wherever and whenever you see in a man or in a woman a tendency to co-operation, communal life, tenderness, compassion, love, a sense of unity, a great sense of duty, a joy in sharing and a greater joy in giving than in receiving, then know positively that that person is living in a higher mind or on a spiritual level.

Wherever and whenever you see in a person a tendency to wisdom, humility, altruism, simple living and high thinking, a disciplined life, living in the world and not being of the world, in short, living a life of loving, self-sacrificing service, then know that the consciousness in that person is functioning at the level of the upper triangle, Δ .⁴

¹ See pp. 275-276, this Vol.—Ed.

² A man with a closed mind does not receive fresh ideas; he stagnates. He is like a stagnant pool of water covered over with scum and moss. A man with an open mind is like a running stream of water exposed to fresh air. He is always receptive to new ideas.

³ See p. 219, Part III (Self-Exploration).

⁴ See diagram 2 in the General Introduction, Part I, see also pp. 275-277, this Vol.

How to pass from
the Lower to the
Higher Mind

If that is the case, how is he to shift the focus of his consciousness from the lower level to the higher level?

The *modus operandi* is shown in what follows:

We have already seen in the Introduction to Part II, how we could pass from the consciousness in body to the consciousness in the lower mind.¹ This we did by becoming interested in the pursuits of the lower mind, in the solution of personal problems, etc. Similarly, we could shift the focus of consciousness from the lower mind to the higher mind, from the lower triangle to the upper triangle, to the realm of the spirit by becoming interested in the pursuits of the higher synthetic mind and the spirit, that is, becoming interested and engaged in the solution of impersonal, communal, national and world problems.

By remaining ever engaged and immersed in the solution of big, *impersonal* problems such as the following, one acquires a healthy outlook on life, and **in the very living of that life**, one's relations with the members of one's family, one's servants, one's neighbours, and all others with whom one comes into contact become noble and refined:

By becoming
interested in the
solution of Imper-
sonal Problems

1. The question of rehabilitation of society necessitated after World War II (food, clothing, housing, and other social problems).
2. The evolution of an Economic system which lays stress on the *sharing* of the fundamental necessities of life, the wise *pooling* of all resources for the benefit of all and a wise system of *distribution*.²
3. The evolution of an Economic System in which there would be no frustration or exploitation of science, no destruction of foods and goods and no restriction of production, no unemployment and consequent starvation, a mixed economy which is a higher synthesis of capitalist and socialist economy.
4. The establishment of right human relations based on justice and the recognition of the unity of life. The equitable and friendly adjustment of relations between inter-racial, inter-religious, inter-communal, inter-provincial and inter-national groups.

¹ See Introduction to Part II, Vol. I, p. 185; also diagram, p. li, Vol. I.

² See p. 479, this Vol.—Ed.

5. The establishment of moral law among nations. ¹

Just as energy manifests different characteristics such as motion, heat, light, sound, electricity, magnetism, depending upon the media through which it functions, so does life energy (consciousness) manifest different qualities and characteristics (as seen above) when it functions through the different levels of the mind plane.²

There is a tremendous difference between the ordinary energy we get by the burning of coal, wood, oil, petrol which is *inter-atomic* energy and the *intra-atomic* energy which we get from radium and other radioactive substances or the atom bomb, showing that they are different types. (Inter-atomic energy : Intra-atomic energy, 1 : 3,500,000.)

We have already now become aware of the tremendous energy locked up in the atoms of all elements. But this intra-atomic energy is nothing in comparison to the soul or spirit force.³

Now the power of the life energy when it manifests through the higher levels of consciousness is tremendous.

The great danger awaiting us in the future is the misuse of thought force, as in pseudo-occultism, for selfish purposes, for self-advancement, for gaining influence over others, etc.⁴ If this is not guarded against and if this soul force is used for destructive purposes, then our present mind-dominated civilization will be annihilated and we shall go back to dark ages. To guard against that danger, the employment of a new technique of life, of a new type of discipline, as shown below, is most urgently needed.

The Royal Road to the Higher Life

The Parable of the Individual Soul in a Chariot :

3. Know thou the soul (Atman, Self) as riding in a chariot,
Know thou the intellect (Buddhi) as the chariot-driver,
And the mind (Manas) as the reins.
4. The senses (Indriya), they say, are the horses,

¹ See p. 427, this Vol.—ED.

² See Table 2, p. 263. Part IV, "The Old Order Changeth."

³ See *Chemistry*, p. 296, Vol. I.—ED.

⁴ See pp. 15-16 and 318, Vol. I, this Series, also *Thought Power : Its Control and Culture*, by Annie Besant.

The objects of the sense, what they range over.

The self combined with senses and mind wise men call 'the enjoyer' (bhoktr).

(Kathopanishad, III, 3).

The first step, therefore, on this path is **Purification**. This involves the purification of—

- | | |
|---|-----------------|
| (a) Body | (Chariot), |
| (b) Desires | } (Horses), and |
| Senses | |
| Emotions | |
| (c) Lower mind (Reins). | |
| (d) Higher mind is the Charioteer and | |
| (e) Spirit is the Owner of the Chariot. | |

There should be purification of a, b, c, and their *harmonization* under the direction of the Higher Mind and the Spirit.

When the charioteer (the higher mind) controls the reins and through the reins the horses, the chariot moves on smoothly and merrily to its desired destination and the chariot-driver is completely happy. But when the chariot-driver is not able to control the reins (the lower mind), and the horses (lower emotions) take the bit of the bridle between their teeth, then they become unmanageable, and the charioteer is quite upset. For the lower mind and the lower emotions between themselves may take the body, the personality (the chariot) anywhere *they* like and break it to pieces. (See the two diagrams which are self-explanatory).



What is wanted is a pure, open, sensitive, intensely receptive, controlled and detached mind, purified emotions, a harmonization of thoughts, emotions and actions and a direction of these by the Inner Ruler Immortal in all activities.

The next step on this path is **poise and balance of mind**. One should neither be depressed by failure nor elated by success. One should not be upset by ups and downs in life. One should, under all circumstances, keep an even mind. Just as a temple is reflected in the pure, calm waters of the mountain lake, so is truth reflected in the mind when it is pure, still and unruffled.

This also shows another way of acquiring knowledge, and passing on to spiritual planes. The ordinary way of getting knowledge is by **tuition**, that is, by attending schools and colleges, reading books, listening to talks, lectures, sermons, etc. This is acquirement of knowledge from without.

The other way of getting knowledge is by **intuition**; this is acquirement of knowledge from within. Two conditions require to be fulfilled in this case. The mind must be pure and passive, (as opposed to active) and negative, (as opposed to dull), or in other words, extraordinarily sensitive like a photographic plate. A child satisfies these two conditions; it is so pure and innocent and its mind is so passive as well as sensitive that it has *unconscious intuition*; it learns while playing. It learns a new language without any effort, as we know.

If an adult were to satisfy these two conditions, then he will have *conscious intuition*.

The gift of mind is the greatest gift given to man and it is that which distinguishes him from the lower creation. But the mind must occupy its rightful place in the constitution of man and its rightful place is next to the spirit, the inner man, the ruler. Mind and intellect must ever serve as instruments of the Spirit. The Reality is outside the mind, beyond it; so, we cannot have an idea of the Reality which is working on a higher level from the level of the mind. With the help of the mind we cannot find or reach the Reality. That is why mind is called the slayer of the Real by H. P. Blavatsky¹. That is why we are asked to go beyond the level of the mind, to touch the deeper chords of our consciousness,

¹ *The Voice of the Silence*, p. 119, 1939, Adyar Edition.

to go to the higher levels of our consciousness, to go to the innermost recesses of our being, to the inner silence of our true Self. It is a realization which has to be felt and experienced. It cannot be described nor discussed. By describing the composition of water and its properties one cannot make a man realize the taste of water; by giving the wave-lengths and the rates of speed of vibrations in ether, one cannot make a blind man realize and appreciate the beauty of different colours in nature; they are things which are to be tasted and experienced by each individual for himself. No other person can help him there; he can only point out the way.

And so the next step in passing from the *partial* life of body and mind to the *whole* life of body, mind and spirit is by "Inhibiting the modifications of the thinking principle" (Patanjali), that is, by bringing the thought processes to

Calmness after
the Storm

an end. This state of the mind when it becomes still and completely empty after a period of restless activity, resembles 'the calm that follows a storm. It is in the stillness of the night that the flower of the spiritual life is born' (*Light on the Path*).

Only when we become normally and naturally unconscious of our body and mind, that our consciousness will begin to function on a level beyond the mind. And this is possible when we so live our life that we are in a state of perfect health of body and mind.

The Characteristics of a Healthy Body.

One of the **characteristics of a Healthy body**¹ is that the man becomes completely unconscious of its existence and therefore consciousness is not focussed on the physical plane level.'

The Characteristics of a Healthy Mind are that :

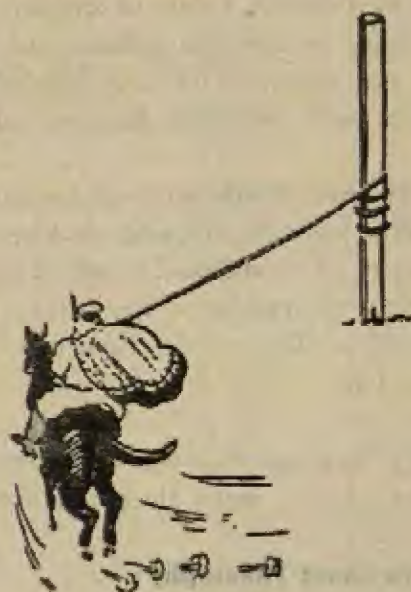
1. The man becomes unconscious of its existence.
2. The mind is perfectly under the control of the spirit.
3. The mind is always aware and alert, passive or active, as the man wills it.
4. The mind is extraordinarily sensitive like a photographic film and open to the reception of new ideas.
5. The mind is humble and not egoistic.
6. The mind is purified and tranquil and above all,
7. The mind is not conditioned in any way.

¹ See p. 325, *We and Our Food*, this Vol.

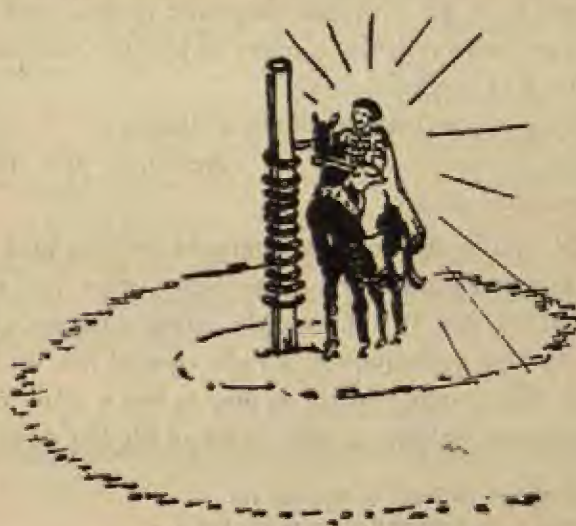
It is only then that the inner voice, the Voice of the Silence, will begin to speak.

When the mind is active, intuition is silent.

"In quietness and confidence intuition speaks. But never when the mind is swept by thoughts unkind".



CONCENTRATION, MEDITATION, CONTEMPLATION



ILLUMINATION

What has been stated above may be further explained by the diagrams given on the previous page.

The rider with the horse represents the mind. The pillar represents the subject (objects, persons, ideas) which the mind concentrates upon and which it examines from all sides by going round and round as shown in diagram (top) until it reaches a stage of complete halt. It is when the mind reaches that state of complete stillness and passivity, as well as negativity, akin to the sensitivity of a photographic film that a flash of illumination comes and the truth becomes reflected in the mind. (diagram bottom).

There is a wrong way of making oneself partially unconscious of both body and mind and that way is by drugging, smoking and drinking.¹ Advertisements in the papers on the different brands of cigarettes and alcoholic liquors show how deep the peoples of the world of both sexes have sunk into this wrong practice. These act as barriers to the living of a wholesome, healthy, cultured life.

It is also very necessary for one to be free from misconceptions about, and prejudices against, many things, as they come in the way of progress.

Misconceptions about Theosophy :²

1. That it is a cult.
2. That it is a religious sect.
3. That it is an orthodox dogmatic religion and that one should leave one's religion in order to join the Society.
4. That it is ceremonialism.
5. That it is speculations of the ancients.
6. That Theosophists are all vegetarians and dreamers and not practical people.³

A study of the different monographs in this book will show how wrong these misconceptions are. Theosophy does not ask us to *leave* our religion but to *live* it. Theosophy gives a deeper understanding of the laws of life and consequently a right view of life, an aeroplanic view of life; in short, Theosophy teaches us *how to live a whole life*. Theosophy gives, and wishes us to have, a wide vision of life but does not want us to

¹ See the monograph on *Food*, p. 326, this Vol.

² See Foreword to the Second Edition, p. vii, Vol. I.

³ See General Introduction, p. xxxv, Vol. I.

be visionaries. Theosophy does not want us to leave society and go to a forest ; it wants us to live in the world but not be of it.

"The Theosophical Society teaches us no new religion, aims to destroy no old one, promulgates no creed of its own, follows no religious leader, and, distinctly and emphatically, is not a sect, nor ever was one".
(H. P. Blavatsky)

Misconceptions about Science :

1. That science is responsible for wars and the misuse of the forces of nature released by it.
2. That science has created materialism and is therefore responsible for the superficial, artificial, materialistic, worldly life that the people are living.
3. That science has degenerated our tastes.
4. That science has made us proud, irreligious, disrespectful to age and things holy and sacred.
5. That science has made us sceptics, agnostics, atheists.
6. That science is able to solve the riddle of life and all problems facing society.
7. That scientific training and discipline ennoble one's nature and help to produce men and women of character.

A study of the different articles in the book will show that it is not science nor scientists who are responsible for the misuse or abuse of powers given to man by science, but those at the helm of affairs who use science or order science to be used for destructive purposes. Science itself is a-moral. Science has dematerialized matter. Matter is nothing but congealed radiation. Matter and energy are now interconvertible terms.

The charges against science (Nos. 5, 6, 7) given above were true some years ago but it is not so at the present day, for science has become more humble now. It recognizes its own limitations and admits that it *alone* cannot solve the riddle of life nor can its training and discipline *alone* refine and ennoble man.¹

A person wishing **to live a whole life** has also to bear in mind a number of other points ; we shall consider here just a few which affect us every day of our life.

¹ See *Introduction*, this Vol.—Ed.

A person wishing to live a whole life should not have *a critical or fault-finding attitude*. If at all he wishes to criticise, he should criticize himself and not others; he should rather be aware of his own weaknesses than of those of other people.

A Fault-Finding
Attitude

In the words of H. P. Blavatsky, he should be hard like the mango stone towards his own weaknesses and soft like the mango pulp towards the weaknesses of others. Charity does not consist merely in giving money to the poor. There is charity in thought also and he should be charitable towards the faults of others and ever try to strike a note of appreciation of other peoples' good points. What is wanted is consideration of other peoples' thoughts and feelings.

This does not mean that one should not examine and criticize current problems. An impersonal, detached, critical examination is absolutely necessary. It is necessary to detach not only from the subject matter, but also from oneself; only then shall we be able to examine the problems with an open, unprejudiced mind; otherwise we shall see through coloured glasses and not perceive truth. The two keys to be used by us are (a) detachment and (b) passing from the lower into the higher realms by becoming interested in the higher.

Seeing through
Coloured Glasses

The Chinese toy of three monkeys, one represented as closing his eyes, another his ears and a third his mouth, each with his hands, graphically represents what our attitude in life should be. We could imagine the toy speaking to us thus: See not, hear not, speak not. We should avoid seeing and hearing about other peoples' faults and weaknesses; but if we are placed in circumstances in which we cannot avoid doing so, then the next best thing is not to speak about them to others. Let us seal our mouth as if we do not know anything about these matters. Let us beware of gossip. This weakness requires to be conquered and it can be done very easily by keeping our mind engaged in the solution of impersonal problems affecting our neighbours, our city, our society.

Beware of Gossip

A man wishing to live a whole life should again be free from the misconception that business (profession) and spiritual life cannot go together. Would not an aeroplane¹ view of life on any problem help a business or professional man? Conscientious, honest, hard work without telling lies and without any thought of exploitation, (profiteering, hoarding, blackmarketeering)

Business (Profes-
sion) and Spiritual
Life cannot go
together

¹ See p. 225, this Vol.—ED.

pays in the long run. A person could have an experience of Higher Life through his business and profession also. If he desires to have such an experience, then he has to see that his business and profession are consecrated and dedicated to the service of the people.¹

Another misconception which a person wishing to live a whole life should avoid is that spiritual life is to be lived and can be lived only when he gets old or retires from business or service. Now what is spiritual life? To live a spiritual life means only to live a whole life. To live a whole life means to have an aeroplane view of life, to see things more clearly. Should a youth postpone seeing things more clearly till he gets old? Would he not like to extend his vision and have an aeroplane view of life which would help him to solve his problems. Would he not like to live a whole life? "Postponement is thoughtlessness".²

Another misconception which a person wishing to live a whole life should guard against is that one should leave one's family and go to a forest if one wishes to realize one's Higher Self or God. There is a story of a person leaving his family and going to a forest and acquiring some inner powers by a life of austerity and concentration, which he followed for twelve years. One morning when he was resting underneath a tree, a bird committed nuisance on his body; he cast an *angry* look at the bird and the bird dropped down dead before him. He was very pleased at the result. He there and then decided to leave the forest, go to the city and demonstrate his powers to the people. A distance of a few miles lay between the forest and the city. He did not come across a single soul before he halted at the first house he sighted and asked the lady of the house for some alms in the customary way. He had to wait for some time before the lady came out and gave him rice and flour. The 'Sadhu'³ showed some *anger* to the lady as he, who was such a great sadhu, was made to wait for such a long time. The lady taunted him by saying that he should not try to repeat the same story with her which he did with the bird. The sadhu was surprised as to how *she* came to know about this incident and when she saw his surprise she told him that she had acquired these powers by fulfilling her 'Dharma'⁴ most conscientiously. Fulfilling his *dharma*

¹ See *Economics*, p. 485 this Vol.—ED.

² J. Krishnamurti.

³ A religious mendicant.

⁴ Duties.

in whatever position a person is placed is a great thing. And that is what he should aim at.

There is another misconception, namely, that there is only one life to be lived. This leads to wrong living, leads to a life of rush, hurry, stress and strain and comes in the way of living a calm and peaceful life and calm and peaceful thinking over the deeper problems of life. The same misconception acts in a different way on another set of people. These people, thinking that there is only one life to be lived, simply 'eat, drink and be merry' and do not care what is happening in the world. Both these sets of people live in their personality only; their consciousness is not capable of functioning on a level higher than that of the lower mind. How could these people expect to live *a whole life* under the circumstances?

An example taken from psychology will be found to be very illuminating. We find the primitive people so little advanced intellectually, that they are not able to link the events of two days or nights. If a warm blanket is given to a primitive man to cover his body during a very cold night in winter, he would not preserve it to be used the following night, for the day being warm he discards it and does not know and remember that he will need it for the cold night. In other words, he is not able to take *a whole view* of a cold night following a warm day and so is not able to take advantage of the warm blanket by keeping it with him wherever he goes.

So far as our different lives on earth go, we too are in the same plight as the primitive man; for, we do not remember our past lives and are not able to connect the events of the past life or lives with those of the present. One life on earth of 50, 60, 70 years' duration is supposed to be equal to a day in the life of the soul. There are instances known of some people remembering their past lives. But if we are not able to remember our past lives, at least we can surmise what the causes might be of the different episodes which are happening to us in the present life, or, we may take as a hypothesis the theory of the plurality of lives. Those who do not believe in such a theory are usually found to grumble and complain about the injustice of God when any calamity befalls them and shift their responsibility on others. They do this for they are not aware of the *Law of Karma*, the great law of 'cause and effect' or of

'action and reaction'. This law plainly says: "As you sow, so you reap". This law holds good not only in agriculture and horticulture but also in homoculture. For *everything* that happens to us, we ourselves are responsible and nobody else, for it is we who have sown the seeds in the past, of which we are reaping the harvest in the present, whether good, bad or indifferent.

The law is true not only on the physical plane (the plane of action) but also on the planes of emotion and thought. By sowing weeds, we do not expect to get wheat. By sowing hatred and ill-will, how could we expect to get love and good-will in return? But that is what people are expecting and fondly suppose that they will be exempted from this law; so, they are more particular about their exterior acts which others see, and harbour ugly, evil and malicious thoughts against others as they are invisible. If they understood the law, then they would know that they were reaping now the results of the evil emotions and thoughts in which they had indulged in the past, and which have come to them now in the shape of personal injustice, loss of money or reputation, loss of dear ones, physical illness, mental suspense, worries, torture, etc., and therefore they will think twice before they harbour such evil emotions and thoughts in their mind. The law is inexorable but just and so the converse of it is also true, namely, that if they become centres for radiating loving, helpful, courageous thoughts, wherever they go, they will be creating a future which will be happy, peaceful, joyous and prosperous.

'Be ye as humble as a child before ye enter the kingdom of heaven'.

God is NOWHERE

One must set aside one's pride and be humble like a child. Pride ruined Satan, the second archangel and hurled him to hell.¹ There was an atheist who had a little child three or four years old, who was just learning to read. The atheist intoxicated with his pride wrote one day on the wall of his room at several places in big letters GOD IS NOWHERE. The little child who had just begun to read, read what was written on the wall as—God is NOW HERE—as he could not read long words, and he was so delighted with what he read that he went running to his father and told him about the great discovery he

God is Now Here

had made—the presence of God in the room—took him to the wall and showed it to him. The innocent child saw God where the father in his pride saw mere darkness. That day the father learnt a great lesson from his own child whom he

¹ See General Introduction to the 2nd Edition, p. xlv.

considered a little 'Messiah', and 'Messiah' every child is in the words of Dr. Maria Montessori, if it is given proper environment—an environment of love and freedom—to grow.

The idea of separateness between 'You' and 'I' should go. There are two classes of people in the world: one class says: 'This is mine and that is yours'; this is the average man. The second class says: 'This is mine, that is mine *also*, everything is mine, the whole world is mine'. These are very dangerous people; they cause great mischief in the world. There is again a third class of people but before I speak to you about them I should like to illustrate my point by giving a short story from a Persian Sufi poet, Faredun Attār who elaborated the philosophy of Sufism in his famous book 'Mantek-ut-Tayar' or The Speech of Birds.

He speaks of a hundred thousand birds who proceed on a long journey to seek their King who is staying on a high mountain and who is known by the name "Simurg". A very large number of birds get caught up on the way attracted by trees and flowers and fruits of beautiful shapes, variegated hues and delicate taste, scent and perfume. Proceeding further on the very difficult and arduous journey and after crossing many seas and valleys, mountains and forests, only thirty birds reach their destination. They see a big gate there and knock in the appropriate way and are delighted to get a response from within. A voice was heard which asked: "Who are you?" and the chief replied: "It is we thirty birds who have come to have your 'darshan'". After they gave this reply they expected the gate to open, but it did not open and great was their disappointment. After many days of discussion among themselves and brooding and meditation, they once more knocked. As before, the same question was asked and the same reply was received and the gate did not open. After weeks of quiet meditation they learnt the greatest lesson of their life and so when they knocked for the third time and when the question was put to them "Who are you?" they replied: "It is *You*", the door instantaneously opened. And what did they see? They all stood in a row, these thirty birds and saw in front of them a huge mirror, and their own reflection in them.

The Story of the
Simurg

Now they inquired with one voice "Where is the Simurg, our King, our God", for the birds may be supposed to represent human beings in search of God. The reply came: You were Simurg in the making and now you have become Simurg in reality. For, you have now left behind the illusion of

separateness, namely, that one bird (man) was different from another bird (man) because of the difference of his race, colour, caste, creed, sex, opinion, language, etc. Thirty *separate* birds now became *one* single bird, for there is a pun upon the word, Si and Murg. Si means thirty and Murg means birds. When they started on their journey they were thirty separate birds but after passing through many ups and downs and vicissitudes and long experience they at last learnt that they were all one and not separate and became merged into a unity and that very moment each one saw the reflection of himself in every one else.

Si Murg became *Simurg*

This is the greatest lesson we have to learn from life. We are all one at the core. The same divine life sustains us; we are all children of one Divine Father and so we are all brothers, members of one human family. All differences mentioned above which apparently divide us are mere external differences and therefore our motto should be "Together, Even Though Differently".¹

The third class of people referred to above is this small group who try to behave themselves in the world as if they are members of one human family; they are international in their outlook, they believe in co-operation and not in competition, in love and not in hatred, in the use of atomic energy and not in atom bomb, in a willing curtailment of their sovereign rights, thus opening a way to co-operation between communities and nations; they believe in inter-dependence with independence and not in isolation, in union and not in separation, in wholeness and unity and not in partition and division. **These are the truly cultured people of each country. Let them band themselves together and lead the thought of the world, thus laying the foundations of a new civilization on a true spiritual basis.**

But there is a fourth class of humanity *also* about whom the world knows practically nothing. They are the perfected human beings who have gone beyond the wheel of life and death, who have reached the end of evolution but who, out of intense love for the ignorant erring humanity, prefer to remain in contact with the world to guide it to its destined goal. To Them the Plan of God is a Living Idea, They are At-One-Ment with the Plan, with

¹ Dr. G. S. Arundale has given this beautiful thought to the world.—ED.

Who are the truly
Cultured Peoples of
the World?

The Inner Govern-
ment of the World

the Archetypal Idea, with the Will of the Logos. They form a Spiritual Dynasty, an Inner Government of the World where there is but One Will, One Heart, One Mind at work. God alone is the Great Thinker, the Great Lover, the Great Law-Giver. The illusion of the separated selves has faded from the mind as the unreality it ever was. The stream of life of the little selves has become merged in the Great Stream of the Resistless Will and Purpose of the universe. THE POWER IS IN THE UNITY.

There come to many people, when the time becomes ripe, psychological moments which bring about a profound change in their lives. A reading or reviewing of a book, listening to a word or a phrase in a sermon or in a prayer, or a few words from a friend or a stranger have proved to be the turning points in the lives of many people.

A very large number of such examples are known both in the West and in the East but only a few are given here.

What brought about **Annie Besant's** conversion to Theosophy? Her earnest search for truth and strong passion for realizing it and serving humanity led her from orthodox dogmatic Christian religion of her time to materialism and atheism. Along with Bradlaugh she lectured on public platforms on atheism for twelve years. Her reviewing *The Secret Doctrine*, by H. P. Blavatsky, given to her by William Stead for the purpose, brought about her conversion to Theosophy of which she remained an ardent champion till the end of her life.¹

St. Paul was another example of conversion. He was a great Pundit and learned man in Jerusalem. He harassed and persecuted the Teacher (Jesus Christ) and his apostles and followers. His pride had clouded his intellect. When he was proceeding to Damascus to offer further resistance, he saw a blinding flash of light and lost his sight. He also heard a voice at the same time saying: "Paul, Paul! why dost thou persecute me?" He replied: "I am blind" and blind he was both literally and metaphorically. His eyesight was restored later. His eyes were opened—his inner sight—and he was converted. He wrote a major part of the New Testament and many Epistles. He was the 13th and greatest of Christ's apostles.

Victor Hugo in his famous book *Les Misérables* gives a very good example of the inner conversion of a man of criminal tendency, whom

¹ See *Why Theosophy?* by Annie Besant, pp. 32-33, Vol. I, this Series.—ED.

the Bishop of the place had kept as a guest. This man stole two silver candlestick stands from the Bishop's house and left it. The policeman on duty caught him red-handed and recognizing the silver stands as the Bishop's brought him to his house. The Bishop realizing the situation told the policeman that the two stands were *presented* by him and that they were not stolen by him. This noble attitude on the part of the Bishop brought about the conversion of the man. It was a turning point in his life. He became a good citizen and ultimately the Mayor of the town.

Bayazid was a robber. One day he was proceeding towards the city at the middle of the night on his nefarious profession. As he was approaching the city, the first words of a devotee's midnight prayer which fell upon his ears and which he was able to hear distinctly were: "There is still time to improve". These had a miraculous effect upon him. He decided there and then to give up his profession as a robber and became a great Sufi.

How did **Faredun Attar** ¹ (supra), a wealthy dealer in perfumes, become a Sufi?

One day Faredun Attār saw a "Darvish" staring at different perfume bottles in the shop. He enquired what he was doing. He said he wanted to find out in which bottle Attar's soul would live when he died. Attār questioned again where the dervish's soul would be when *he* died. He answered: "On this piece of cloth" which he carried with him, which he spread on the ground, then lay himself down on it and there he died. He was not an ordinary mendicant. He was a master of life and death and this was the device which he used to draw Attār to a higher field of work for humanity. This incident brought about Attār's conversion and there and then he left his shop and his lucrative business in rare and costly perfumes. He became a great Sufi and poet and gave his priceless gem—"Mantek-ut-Tayar", which gives a beautiful account of Sufism, to the world. (vide supra).

How did **Surdas** become a great Bhakta (devotee) of Sri Krishna? Surdas was a poet. He had a mistress who was the one person who sang his compositions best. He was intensely in love with her of which he gave a drastic proof one day by crossing a river in flood on a dark night on a floating corpse which he thought to be a boat and climbing to her room by holding on to a live serpent which he supposed to be a rope hanging from the floor above, the gates of the house being closed.

¹ The author of Mantek-ut-Tayar, the Speech of Birds, see p. 564.

When she saw him and heard his story, she felt very happy at his great love for her but she said to him: "If you love God as ardently as you love me, you would be a great saint". These words acted like magic upon him. He left her there and then: his love for one soul (his mistress) became converted into love for many (humanity); he became a great 'bhakta' of Sri Krishna and gave to the world one of the best examples of what a selfless devotee could be and left priceless songs for his people who feel elevated to a higher level of consciousness when they sing them, forget the cares and worries of the world for a time and feel inspired to live a better and higher life.

How did **Valmiki**, a robber, become the author of the Ramayana? Valmiki was a robber. He lived in a forest with his wife and family and his business was to plunder the people passing through the forest. One day his victim happened to be not an ordinary man but a great advanced soul. He asked him why he was harassing people and plundering them? Valmiki said: he had his wife and children to maintain. Then Valmiki was asked whether his wife would be a partner in his sins. He said: "Certainly, he was doing that for her and she of course shared his sins". The saint told him that he did not believe so and that Valmiki was mistaken in that belief. If he doubted his statement he may bind him to a tree so that he may not run away, then go to his house and inquire of his wife. Valmiki did so and to his utter surprise found that his wife refused to share in his sins. She said: It was his duty to maintain her and the children. She did not ask him to plunder people. He was amazed at her reply. This opened his eyes. He gave up his plundering business and afterwards became a great and holy man and gave the priceless 'Ramayana' to the world.

* * * * *

The Royal Road
to the Larger,
Wider Life

Are we to wait till such psychological moments come to us and such incidents happen to us in our life and bring about an inner conversion, OR, are we to follow the Royal Road to the Higher Life, to the Larger, Wider Life, as depicted above and at several other places in the book, OR shall we be forced to it by *outer* compulsion?

If this royal road to the higher, wider, bigger life is not followed voluntarily, consciously, *through understanding*, by taking life deliberately in our own hands and guiding it to its proper goal, if an internal revolution is not brought about

Inner or Outer Com-
pulsion?

in our life by making a drastic change in our wrong eating habits,¹ in our present modes of life and habits of thought, by breaking away from the shell of prejudices of our own age, country and party, of our own race, religion, caste, creed, colour and sex; once more if we do not so modify our life that there is an open and receptive mind and *an inner compulsion* to the living of a spiritual life, to the living of a larger, wider, nobler life, which is an urge, a call from the spirit itself,—then the other alternative will be, that we shall be forced to it by *outer compulsion*, by cataclysms in our life, by ups and downs and hard knocks in our life, by trials and ordeals, by loss in business and of reputation, by the loss of our dear ones, by our own sickness or sickness in our family, etc.

We have to choose between these two alternative paths: one of inner compulsion and the other of outer.

The keys to this higher spiritual life are, purification, wide awareness, deep understanding, discrimination, detachment, and transmutation. This is real conversion. This path is so beautifully depicted in an ancient prayer with which we shall conclude our subject:

" From the unreal, lead me to the Real,
From darkness, lead me to Light,
From death, lead me to Immortality ".

When we ardently follow the implications of this prayer, then we shall get a peace that passeth understanding and a power that maketh all things new—a peace that abides in the hearts of those who live in the Eternal and a power that lives and moves in Those who know the Self as one.

May we all have the wisdom to follow this Royal Road to the larger, wider, higher life, to this noble, beautiful, spiritual life and attain *that* peace, *that* power and *that* thrill of joy through Self-unfoldment is our sincere prayer!

¹ See the monograph on Food, Part IV, this Vol.—ED.

EPILOGUE

By THE EDITOR

MAN is not a mechanical, chemical or electrical machine but "a philosophizing animal",¹ says modern science. This all-important change from a mechanical machine to a philosophizing animal brought about in science today is to be seen less in its discoveries and inventions than in its altered outlook.

Changed Outlook
of Science

The truly significant change in modern science is not to be found in its increased powers to aid man's progress, but *in the change in its metaphysical foundations.*¹ (Italics Editor's).

"In the evolution of scientific thought, one fact has become impressively clear: there is no mystery of the physical world which does not point to a mystery beyond itself. All highroads of the intellect, all byways of theory and conjecture lead ultimately to an abyss that human ingenuity can never span. For man is enchained by the very condition of his being, his finiteness and involvement in nature. The further he extends his horizons, the more vividly he recognizes the fact that, as the physicist Niels Bohr puts it, "we are both spectators and actors in the great drama of existence". *Man is thus his own greatest mystery.* He does not understand the vast veiled universe into which he has been cast for the reason that he does not understand himself. He comprehends but little of his organic processes and even less of his unique capacity to perceive the world about him, to reason and to dream. Least of all does he understand his noblest and *most mysterious faculty*: the ability to transcend himself and perceive himself in the act of perception".² (Italics Editor's).

¹ J.W.N. Sullivan, *Limitations of Science*, pp. 194, 196.

² Lincoln Barnett, *The Universe and Dr. Einstein*, p. 103, 3rd Ed., 1950.

Thus concludes Lincoln Barnett his brilliant exposition of Einstein's ideas about the Universe. This shows the great importance of the study of man, the inner man, who is "his own greatest mystery", the great need of Self-exploration and Self-unfoldment with the help of the "mysterious faculty" which could be cultivated by proper training and discipline. These are the objectives of the book as shown below.

The present Volume discusses in Part III this whole question of Man's constitution, beginning from the physical body and ending with the will. We are taken step by step upwards, in this section of the book, from the dense physical body the constitution of which, both from the Theosophical and scientific viewpoints, is described in the first monograph, namely, "Physiology"; then, in the next monograph the constitution of the etheric¹ body (the subtler physical body) is discussed in the light of Western scientific research, leading finally to the subject of Yoga (*vide infra*).

The school of "level psychology" speaks of consciousness working at different levels, the lowest level being that of the physical body, the next higher being etheric. Next there is consciousness working at the emotional, lower mental (concrete-analytical), higher mental (abstract-synthetic), intuitional and finally Will levels. This is not all. Consciousness expresses itself at still higher levels (*vide* diagram 1 in "Chemistry", Part II, p. 276). Consciousness works at all these levels but may be more active at one level than at another at any one time, depending upon a man's stage in evolution. It varies at different periods of a man's life; it varies in a community, a nation or a race at different periods of growth. All pass through these different levels of consciousness. That is our common experience. It therefore follows that what may be good for the evolution of one man, community or race at one time is not necessarily good for the evolution of another man, community or race at the same time. Thus, there seems to be operating a *principle of relativity* in the human conduct. There cannot be an absolute rule of conduct for every man, woman and child in the world. This principle of relativity deserves to be borne in mind in every department of activity, in every branch of knowledge, in every walk of life.

¹ "Ether" is physical matter in Theosophical literature beyond the gaseous state, as distinguished from matter of the other subtler bodies which are not physical. See monograph on "Chemistry", Part II, Vol. I, for further explanation.

Another principle which is working in life, and with which it is necessary for us to become familiar, is that there is nothing at rest in Nature. There is everywhere motion, growth; the evolution of form as well as of consciousness which we are witnessing is not static but dynamic. There is an urge within every one of us, within everything in the universe, to grow, to expand, to express, to unfold. It may be likened to water seeking its own level in a closed system, rising to the height from which it came. There is something within the core of everything which ever tries to reach its source.

There are, as described in the book, two processes going on side by side: involution and evolution. Students of science may be familiar with the phenomena of cyclic processes in Nature, cycles of water-vapour, oxygen-carbon, nitrogen (nitrification-denitrification).¹ Similarly there is a cyclic process in the Spirit descending into Matter of different grades, beginning with the subtlest atomic matter of the Cosmic plane and ending with the coarsest solid matter of the physical plane (*vide* diagram 1 in "Chemistry", Part II, p. 276), then ascending once again from the physical level to the spiritual level. This is of course a great cycle, but there are smaller cycles within it. What these cycles are in average and advanced humanity, is shown in the diagram mentioned above.

In Parts I and II we saw how the Light of Divinity becomes crystallized into matter of the physical plane, and then gradually ascends to the level of human consciousness. The titles of the two Parts—*From Macrocosm to Microcosm* and *From Atom to Man* indicate the involutionary and evolutionary processes. The title of Part III—*From Humanity to Divinity*—signifies the further ascent of Consciousness. Here, the different monographs are so arranged that we rise gradually from consciousness working on the lowest level, namely, the physical, to consciousness working on higher and higher levels, until we reach a climax in the monograph on "Yoga", which shows how man can release the divinity at different levels of consciousness and finally become divine.

Glancing through the different monographs, we gain an outline knowledge of the grand process of evolution in the universe of which we form an important part. With this knowledge, life becomes intelligible and worth living.

¹ See monograph on "Chemistry", Part II, pp. 304-5, for further illustrations.

We begin to know what is the purpose of life, what is the goal, and how it is to be attained. With this knowledge we begin to understand the meaning of the past and present in the life of an individual, of a community, a nation or a race and give them their right values. Then we learn how to adjust ourselves wisely to the different worlds within ourselves. As we begin to learn how to harmonize the warring elements within us, how to unify our thought, emotion, speech and action, we also learn how to solve world problems and to bring about a right adjustment between the individual and society and harmony between the individual and the State. Thus for universal harmony to prevail, harmony or right adjustment within the individual must obtain.

"Harmony in the physical and mathematical world of sense, is *justice* in the spiritual. Justice produces harmony, and injustice discord; and discord, on a cosmic scale, means chaos—annihilation".¹ It is the lack of harmony within that gives rise to the chaos without. The *without* is merely a reflection of the *within*. When harmony and peace are attained within, the individual of his own free will and accord will so adjust himself to society that the question of the exploitation of society for the benefit of the individual, and the other equally important question of the suppression of the individual in the interests of society, will never arise. There will be complete freedom of thought and self-expression for the individual. At the same time the interests of society will receive due consideration.

The law by which the Individual governs himself will not be any law imposed from without. He will be guided by a self-imposed discipline based on the laws of Life of which he has now a deeper understanding. The laws by which he governs himself will be love, co-operation, self-sacrifice and service, for he has now outgrown the "struggle for existence", because he knows that he is a soul evolving from the animal state, through the human, to the superhuman.

To reach this consummation he looks to, and is inspired by, the shining lives of the great pioneers in the Science of Life who have trodden the path before him and reached the goal. They who were just like us at one time have, fortunately for us, shown the steps up which we may climb if we wish to reach the heights they have

¹ H. P. Blavatsky, *Isis Unveiled*, Part I, p. 330.

attained. These steps are such as would appeal to all thinking and earnest men and women. They are embodied by H. P. Blavatsky in "The Golden Stairs", but it requires a *daring* spirit to mount these stairs. Let us see what they are: "A clean life, an open mind, a pure heart, an eager intellect, an unveiled spiritual perception, a brotherlines for [all] . . . a willing obedience to the behests of TRUTH, . . . a courageous endurance of personal injustice, a brave declaration of principles, a valiant defence of those who are unjustly attacked and a constant eye to the ideal of human progression and perfection—these are the golden stairs up the steps of which the learner may climb to the Temple of Divine Wisdom".

Such disciplined living will change man from being a selfish, exploiting individual to an unselfish one, willing to share whatever he has—knowledge, wealth, power, possessions—with others of whatever race or country, for the common good; in other words, he is now willing to serve and sacrifice. When a man reaches this stage in his evolution, then he insists less on his rights and privileges and is more conscious of his duties and responsibilities as a member of family, society or State, and he knows how to bring about a fine adjustment between his national and international interests. When he is thus developing his "individual uniqueness" it would be well for him to "learn to think not merely as a unit but as a unity",¹ that is, as a member of a community and so adapt his thought, speech and action in such a way that he does whatever is best for the community. This policy will gradually lead him "towards the final Unity in which there can be no Will but one, because that one is the Divine Will".¹ He will then know how to combine with other individuals in a common policy for society, the State and the whole world. At this stage the way will become clear for the solution of the large number of problems which face him and society.

The dominating factor discovered through this discussion and study is the importance of the problem of the individual. This must be tackled both from without and within, as we have pointed out in the monograph on Economics", this volume, and in many

¹ C. W. Leadbeater: *The Angel of Adyar*, T., Nov. 1933.

other places in the book. This does not mean that all the activities in Approach from All Sides which statesmen, scientists, engineers, economists and leaders of thought are engaged at present for the purpose of attaining a solution of these problems should await the solution of the individual problem. No, far from that. The problem needs to be attacked simultaneously on all fronts; we cannot afford to ignore any of its factors. These great problems cannot be solved by science alone, by religion alone, by metaphysics, philosophy or psychology alone, by economics or politics alone. A correlation and synthesis of all these is necessary. Integration should be our key note.

In the early days of the atomic theory it was supposed that the atoms of the 60 or 70 different elements then known existed in water-tight compartments, having no connection with one another. As our knowledge grew, we became aware that they had a family relationship with one another, and finally it became known that they were all derived from one source. This tendency to unification, of seeing the unity of life in the diversity of forms, is seen in the comparative study of different religions and of all branches of science and philosophy. The very names of the new branches of science such as bio-chemistry, bio-physics, physical chemistry, astro-physics, medical psychology etc. are significant. Nature is one organic whole, and its divisions into different compartments are merely for convenience of study. -The borderland phenomena cannot be investigated by the sciences alone, either single or combined, by philosophy or psychology alone, by religion alone. The time has now come when there should be collaboration not only amongst the scientists themselves, but also between scientists and philosophers, between scientists and psychologists, between scientists and doctors of religion, between scientists and occultists, and no less between Science and Theosophy.

There is everything to gain and nothing to lose in this collaboration.¹ Recent world events emphasize the necessity for such collaboration, which would give us a deeper insight into the laws of nature and help us to base our conduct on these laws.

What happened in Germany² and other countries during World War II, and in India³ after the War, and what is now happening in

¹ *Current Science*, August 1938, p. 74.

² The persecution of the Jews.

³ The Hindu-Muslim tension.

South Africa¹ and other countries are an utter violation of the law of unity, and a complete negation of the idea of brotherhood. Hence, the necessity of seeing the unity of life in the diversities of human races, and basing our policies on that knowledge, becomes self-evident.²

In this connection, it will be admitted by all the well-wishers of humanity that the UNESCO has done a very great service in setting forth the agreed conclusions of the international panel of expert scientists formed by it, on the concept of race. Some of the most important findings reached by this panel of the world's biologists, geneticists, psychologists, sociologists and anthropologists (1950) are:

"That racial discrimination has no scientific foundation in biological fact".

"That biological studies lend support to the ethic of universal brotherhood; for man is born with drives toward co-operation, and unless these drives are satisfied, men and nations alike fall ill. Man is born a social being who can reach his fullest development only through interaction with his fellows. The denial at any point of this social bond between man and man brings with it disintegration. In this sense, every man is his brother's keeper. For every man is a piece of the continent, a part of the main, because he is involved in mankind".

This deeper insight into nature's laws and some fundamental values of life which are eternal will help us to solve the complicated problems not only in the field of ethnology, but in all departments of human activities, in economics, politics and government, in industry and commerce, in educational and social problems, etc. This deeper insight will help us also to understand why the World Economic Conference held in London in 1933 proved abortive, why the League of Nations which was started with such high ideals did not prove sufficiently strong to enforce its will, why the Second World War could not be prevented, why there is not yet a certainty that there will not be any big war in the future, why the virile Western civilization came almost to a breaking point and why it is still receiving hard knocks and is not yet established on stable foundations. These facts make us realize once again the danger of ignoring and violating any important law or laws of Nature—either in our personal conduct or in the conduct and administration of government.

¹ The question of racial discrimination.

² See the monograph on "Anthropology" in Part III, this Vol.—Ed.

Let us therefore build anew our civilization on this spiritual basis, on this deeper understanding of the laws of life, formulate once again our policies in all departments of life—a mighty task but a most glorious and worthy task—on this new basis, and we shall usher in an era of joy and peace and prosperity such as the world has never seen before.

D. D. KANGA

APPENDIX

THIS brief chapter is added at the end of the book to fill up a few gaps. It includes (1) The Approach of Science to Theosophy, (2) The Relationship between Cosmic and Solar Planes (two different views of representation, and (3) a short contribution from Mrs. Viva Emmons on "*The Soul of the Universe* by Dr. Gustaf Strömberg in relation to Theosophy".—ED.

1

The Approach of Science to Theosophy

2

The Relationship between Cosmic and Solar Planes
(Two different Views of Representation)

3

The Soul of the Universe (Dr. Gustaf Strömberg)
in Relation to Theosophy

THE APPROACH OF SCIENCE TO THEOSOPHY

(SCIENTIFIC CORROBORATIONS OF THEOSOPHY¹)

THE UNITY OF NATURE

Theosophy

Science

"Everything originated in the One, and, proceeding from the One, must finally return to the One". (S.D., I, 620).

The new United Field Theory of Einstein

"The radical unity of the ultimate essence of each constituent part

"To-day the outer limits of man's knowledge are defined by Relativity, the inner limits by the Quantum Theory. Relativity has shaped all

¹ See pp. 158 to 182, Vol. I, this Series.—ED,

*Theosophy**Science*

of compounds in Nature—from star to mineral atom, from the highest Dhyân Chohan to the smallest infusorium, in the fullest acceptance of the term, and whether applied to the spiritual, intellectual, or physical worlds—this unity is the one fundamental law in Occult Science".—(S.D., I, 145.)

our concepts of space, time, gravitation, and the realities that are too remote and too vast to be perceived. The Quantum Theory has shaped all our concepts of the atom, the basic units of matter and energy, and the realities that are too elusive and too small to be perceived. Yet these two great scientific systems rest on entirely different and unrelated theoretical foundations. They do not, as it were, speak the same language. The purpose of the United Field Theory is to construct a bridge between them. Believing in the harmony and uniformity of nature, Einstein has evolved a single edifice of physical laws to encompass both the phenomena of the atom and the phenomena of outer space. . . .

"The obvious minimum achievement of the Unified Field Theory is that it unites the laws of gravitation and the laws of electromagnetism within one basic superstructure of universal law".—(Lincoln Barnett : *The Universe and Dr. Einstein*, pp. 96-97, 3rd Ed., 1950.)

MAN'S CONSTITUTION

"The Individuality or the Ego in man is the Watcher ; the Personality is the Actor.

(Theosophical Literature)

"Man is both a *spectator* and *actor* in the great drama of existence". (Niels Bohr)

(Lincoln Barnett : *The Universe and Dr. Einstein*, p. 103.)

Theosophy

Man! Know Thyself
(The Wisdom of Ancient Greece)

Science

"Man is thus his own greatest mystery. He does not understand the vast veiled universe into which he has been cast for the reason that he does not understand himself. . . . Least of all does he understand his noblest and most mysterious faculty, the ability to transcend himself and perceive himself in the act of perception".—Lincoln Barnett.

(Lincoln Barnett : *The Universe and Dr. Einstein*, p. 103.)

*Space of Four and Five Dimensions : **

"The modern mathematical physicist does not hesitate to speak of space of three dimensions enclosed in a space of four".

"The idea of a fourth-dimensional space enclosing a three-dimensioned one is equivalent to the occult idea of the astral plane interpenetrating the physical. So long ago as the early years of this century, C. W. Leadbeater had indicated in some detail that the astral plane was four dimensioned.¹ He also indicated that the mental plane was five-dimensioned,² and this is paralleled by the modern five-dimensional (or projective) theory of relativity to which contributions have been made by Einstein and Bergmann, Lichnerowicz and Thiry, Ludwig and Mueller, and by Jordan.³

*Anu and Meson : **

"Omitting particles heavier than the proton or heavier nucleus of mass 1, . . . until the discovery of mesons, the sub-atomic particles, the positron, neutron, and neutrino did little to bring science and occultism closer because they were either of mass 1, *i.e.*, the hydrogen atom itself,

* See for further interesting details, the two articles on "Atoms, Aether, and Space", by G. Nevil Drinkwater, in *The Theosophist*, Oct. and Nov. 1950.

¹ *The Other Side of Death*, (1904), pp. 108-110: 467-468; *Clairvoyance*, (1908), p. 39; *The Hidden Side of Things*, (1913), I, 28-29.

² *The Inner Life*, I, 354-355.

³ Cf. Professor Pasonal Jordan, "Formation of the Stars and the Development of the Universe", in *Nature*, Oct. 15, 1949, p. 637, vol. 164.

or very close to that value, or they were of the mass of the electron, in round numbers only one-eighteen-hundredth of the hydrogen atom. These particles are much too heavy or much too light to be identified with the ultimate physical particles of the occultist, for since there are eighteen such ultimate particles in the hydrogen atom, we should expect them to have a mass of about 100 times that of the electron. This is assuming that the mass of the eighteen ultimate particles are all equal, but if for the sake of argument the extreme case is taken, and it is supposed that all the mass is concentrated in the nine positive ultimate atoms of ordinary hydrogen,¹ then in that case we should expect evidence for particles of about 200 electron masses".

"Until the discovery of mesons, such particles (the Anu, the ultimate physical particle of the occultist) were quite unknown to physics, but after a good deal of controversy it now appears to be accepted that there are at least two mesons, of known masses, round about 200 electron masses. . . Interesting developments on this subject are expected in the near future".

*Space as a Plenum : **

"The idea of a discrete aether has been abandoned. . . It is the properties of space itself, not of some kind of discrete material filling it, which is the aether of space. These ideas, which have developed as a result of Einstein's first work on the theory of Relativity in 1905, may be regarded as a reversion to the Cartesian (and occult) doctrine of space as a plenum in contrast to the principle of action-at-a-distance in a vacuum, which had been generally accepted by the successors of Newton, though possibly not by Newton himself".²

*The Conception of the Ring-Pass-Not : **

In 1888 Madame Blavatsky wrote :

"The Homogeneous becomes the Heterogeneous, the Protyle differentiates into the Elements. But these, unless they return into their primal Element, can never cross beyond the Laya, or zero-point. . . The Chemist goes to the laya or zero-point of the plane of matter with which he deals, and then stops short. The Physicist or the astronomer counts billions of miles beyond the nebulae, and then he also stops short. The

¹ See pp. 344-345, Vol. I, this Series for the structure of hydrogen—En.

² S.D., I, 536, 537.

semi-initiated Occultist also will represent this laya-point to himself as existing on some plane which, if not physical, is still conceivable to the human intellect. But the full initiate *knows* that the Ring 'Pass Not' is neither a locality, nor can it be measured by distance, but that it exists in the absoluteness of Infinity. In this 'Infinity' of the full Initiate, there is neither height, breadth nor thickness, but all is fathomless profundity, reaching down from the physical to the 'para-metaphysical'. In using the word 'down', essential depth—'nowhere and everywhere'—is meant, not depth of physical matter".¹

This circle of the universe which is nowhere and everywhere, should be compared with the boundless yet finite universe of Einstein's theory. On this view, the geometry of space is curved, so that though there is no boundary anywhere, a straight line from *any* point in it, and drawn in *any* direction, will eventually return to where it began; thus forming a cosmic circle. Such a circle is finite, though many times greater than even the stupendous distance within range of the greatest telescope. It is the largest circle which can be drawn in existing space, and could well be termed a Ring-Pass-Not. . .

At the opposite pole of the cosmic scale, it is remarkable that modern physics deduces from the non-Euclidean properties of space a theoretical limit for every gravitating particle. This principle enunciated in Whittaker's own words is that "every gravitating body has a ring fence around it, which no other body can penetrate".²

But as we have seen above, Madame Blavatsky taught that not only cosmic space, but the elements too had a Ring-Pass-Not; while in *Occult Chemistry* it is stated that, when aggregations of anu (on sub-plane E. 2 of the physical plane) collide, it is the surrounding magnetic fields which strike on each other.

*The Expanding and Contracting Universe: **

A few scientific writers today hold that the universe alternately expands and contracts, though this is still under discussion.³

These ideas of an expanding and contracting universe, and of a universe with its centre everywhere, are anticipated in the following

¹ S.D., I. 155, 156.

² *From Euclid to Eddington*, (1949), by Sir Edmund Whittaker, p. 124.

³ See "Man and the Universe" by Gaston Polak, in *Where Theosophy and Science Meet*, Vol. I, this series.—ED.

ancient occult commentary, as quoted by Madame Blavatsky in 1888. Such ideas, to the science of her day, would have been described as fantastic :

"What is it that ever is?—Space, the eternal Anupadaka (Parentless). What is it that ever was?—The Germ in the Root. What is it that is ever coming and going?—The Great Breath. Then, there are three Eternals?—No, the three are one. That which ever is is one, that which ever was is one, that which is ever being and becoming is also one : and this is Space.

"... Light in Darkness and Darkness in Light : the 'Breath which is eternal' ... It expands and contracts (exhalation and inhalation) ... when it expands, the Mother diffuses and scatters ; when it contracts, the Mother draws back and ingathers. This produces the periods of Evolution and Dissolution, Manvantara and Pralaya".¹ Note that in the above quotation, the Great Breath is ever coming and going, expanding and contracting ; but since the Great Breath is stated to be only another name for Space itself, this means that Space is ever expanding and contracting.

¹ S.D., I, 39-40.

"THE SOUL OF THE UNIVERSE"

(DR. GUSTAF STRÖMBERG)

IN RELATION TO THEOSOPHY

BY VIVA EMMONS

WHEN a book appears, such as *The Soul of the Universe*, by a famous scientist who believes in God, it is a startling event—startling enough to prompt some editors to announce its publication in the news columns. But when that book also presents a logical basis for the understanding of a Theosophical precept, which many have found difficult to accept for lack of any resemblance to known natural laws, it is indeed worthy of every student's consideration. The precept referred to is one stated by Madame Blavatsky almost sixty years ago as a law of nature; that is, of permanent atoms, physical, emotional and mental, being carried from one life to the next, at the same time keeping through the intervening period the stamp of the individuality to whom they belong. That such a thing is possible is now seen to be entirely within reason. For the mechanism which Dr. Strömberg describes can be equally impressive when applied to the idea of reincarnation although the author presents it in relation to the laws of heredity as they affect the changes which bring about evolution.

Men have pondered upon the testimony of the rocks, forests, buried cities and ancient monuments, all of which point to a gradual change on the earth and among its inhabitants. It has been observed that offsprings are similar but not identical; and that the tendency of evolution seems to be in the direction of improvement.

The answer to the question of what determines the *direction* these variations or mutations take, changes which seem to be responsible for evolutionary trends, has been the preoccupation of men's minds since the days of Darwin. It was thought at one time that chance combinations

of the elements involved was a sufficient answer. This hypothesis is no longer tenable; for it is obvious that since all cells in a plant or an animal have the same chromosomes and the same genes, some factor of intelligent direction must be present to determine the ultimate forms which they take, greatly diversified forms suited to the growing organism. Obviously, there must be room for a "guiding principle" such as seems to be propelling evolution toward a goal of some kind—it is thought by some scientists to be perfection—with an intelligence that cannot be denied. If we admit of such a situation, then intelligence must be inherent in the universe from the start (evolution then being a matter of "unfolding"), or inherent in the process of development. It is such a process that Dr. Strömberg describes which, one feels, is of the very nature of the unfolding of an intelligent, universal plan.

He indicates that the same process applies to both inorganic matter and living things. The familiar idea of the duality of the physical world—the "particle aspect" and the "wave aspect"—he designates by the terms Material and Im-material; that is, "an electron belongs to the material world; but electric fields, radio waves and pilot waves to the immaterial world. These are cemented together by an *Im-material Wave Structure* with certain space-time properties. It is this structure which 'organizes' and 'inflates' atoms, molecules, crystals and solid bodies in general.'¹ "It governs the position and motion of the material elements; the material structure follows the *changes* in the im-material structure, and not vice versa".² The source of changes which arise from parent to offspring, and mutations, the basis of evolution, is thus seen to be in these Immaterial Wave Structures. This leads us to suspect that the guiding intelligence is also operating here.

When it comes to consideration of the world of living things, Dr. Strömberg leaves no doubt about this point as he describes a hierarchy of *entities*; each performs the function of organizing the field or wave structure of a living organism. This living entity he designates as a *genie* (plural, *genii*). We must carefully distinguish between the terms "gene" and "genie" or "genii". Genes are the *material*, physical carriers of hereditary characteristics within the chromosomes. Genii are the *immaterial* intelligences, or entities—complicated,

¹ p. 45. The page numbers given in this article refer to the book *The Soul of the Universe*, by Dr. Gustaf Strömberg.—Ed.

² p. 78.

invisible wave systems—directing the changes we know as mutations and variations. The General Genie organizes the whole unit and determines the whole plan. For example, among ants, bees and termites, it is centred in the queen. All organization activities cease when the queen is killed. Likewise, “a Subordinate Genie can expand and form an organ, such as a Heart Genie; a Gene Spirit can expand and form a cell”.¹ “We may regard the metrical space-time field of the universe as a Super Genie, guiding the motions of photons (light beams), atoms and stars along definite paths in space-time”.² We might also expect that genes are included within the orb of this Super Genie.

We know that hereditary characteristics are carried by the genes. But there is a point in the process of fertilization when a *choice* of genes has to be made. What determines that choice has not been answered by science. Theosophy proposes that there are certain great angels, perhaps a variety of Super Genii, who have as their work the choosing of hereditary characteristics suitable for the incoming ego, which will match the residue of his past lives stored as force patterns in his permanent atoms (Immaterial Wave Structures). His qualifications and his abilities are considered as well as his needs for the new life. In this way, both heredity and environment are determined by the needs of the ego. It is therefore seen to be by the joint nature of the hereditary factors chosen from the genes, and the intelligent guiding principle (genie) directing the development and the evolution of the ego, that the choice is made.

Dr. Strömberg has anticipated this by proposing “ova-genes”, a collective term denoting the gene and genie in a fertilized ovum. Then he makes the startling statement that “Ova-genes of many kinds exist in cosmical space. They have conveyed the elementary hereditary characters to the living organisms on the earth. They can exist and can retain their properties, even when they are not associated with matter”.³ Further, he states that “genii cannot be annihilated”; and that “they have restitutional properties which cannot be expressed in terms of our conceptual space and time”.⁴

This completely justifies the claim of Madame Blavatsky that permanent atoms can exist even when not associated with matter. It is probable that, at death, they contract, as genii do, to “energy-free sources which are not linked to space and time”; and that they have restitutional

¹ p. 109.² p. 111.³ p. 145.⁴ p. 151.

properties which may bring to life, under certain conditions, the memory record of the past. It is entirely logical to expect to find just such a situation. For, "in physics we speak about a conservation of mass and energy, of linear and angular momentum, and of electric charge. In the organic world we have a *retention*¹ of certain structural properties in gene spirits and genii, in spite of their splitting and expansion. It is this conservation of structural properties which is responsible for the similarity between parents and offspring. This principle of conservation applies also to mental phenomena, it is responsible for the stability of the mental characteristics of a race, and even for the memory of an individual".² Dr. Strömberg is referring to the memory of the individual over one life. The permanent atoms may be considered as carrying that memory from one life to the next, and in his terminology, could be regarded as a Personal Genie.

Our personal problems are all related to this ghost or invisible entity, our Personal Genie, who is made up of gene tendencies inherited, not from our ancestors, but, through them, from our own individual past. Since we cannot change these genes—they having been chosen at a certain point in our pre-natal history—the question naturally arises as to what we can do about them. Are we to continue to be chased forever by these phantoms from the past, even into our next life? We know that the inherited characteristics of man's nature do change, although very slowly. Strömberg points out that "the gradual development of a new organ or faculty is a manifestation of the incorporation of a new genie in the germ plasm of one or more individuals revealed by its gradual unfoldment".³ Can we anticipate what these changes will be, speed them up or direct them?

The author states, "Tendencies which we inherit are called gene complexes. We cannot get rid of these in our bodies, but we can regulate the secretion of the activating hormones".⁴ "Since the genii are here assumed to regulate the production of hormones, we may say that the genii themselves are modified".⁵ "The genii absorb energy, and then begin to develop their wave systems which then interact with the atoms in the neighborhood and . . . hormones are formed during the process".⁶ But, we may well ask, what kind of genii, expanding their wave systems, can be expected to form such a group of hormones known as xenophobia,

¹ pp. 110-111.² p. 147.³ p. 121.⁴ p. 141.⁵ p. 94.

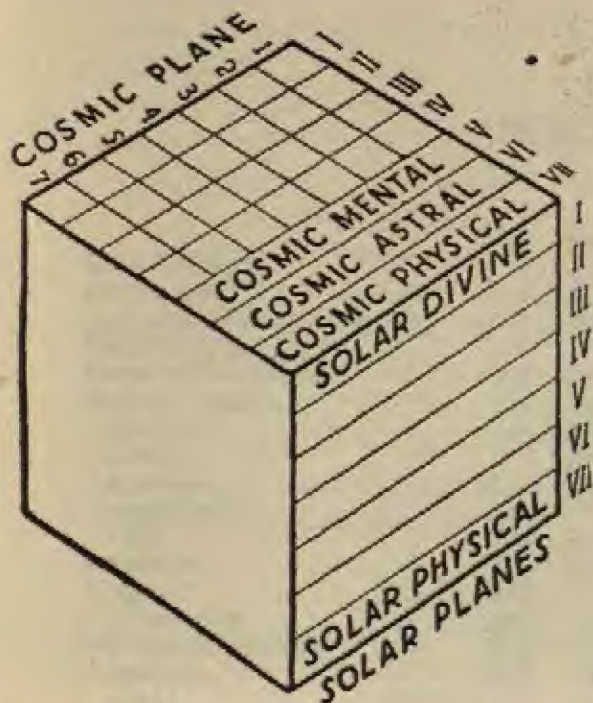
related to the hatred of strangers? These are inherited from our dim evolutionary past, but closely related to our thinking and feeling. Hormones are carriers of special frequencies between living wave systems which must include mental wave systems, since, as we have seen, the principle of conservation of structural properties in genii applies also to mental phenomena. It is because of this connection with mental genii (the mental permanent atom) that we can hope to "regulate the secretion of the activating hormones", and thus control the changes which take place in the various wave systems with which our permanent atoms supply us. It is in this connection that the Author has a great deal to say on the question of "World Soul" and "the Soul of the Universe". In the author's opinion, "as organic evolution is to a large extent due to *mutations*, so mental evolution seems to depend on a certain type of *variation in mental characteristics*, a variation which is limited, however, to a few individuals",¹ . . . "who have been able to establish a more intimate contact with the World Soul".² All men share the properties of the World Soul, properties which include universal mind, cosmic will, retention of identity—reflecting the unitary nature of the universe—indestructibility, capacity for development and the rudiments of goodness. So we are not left without hope. Instead, we are assured that all parts of us, from our genes to our souls, are one with an Entity which encompasses the universe; and that our spirits are free like God Himself.

¹ pp. 205-6.² p. 206.

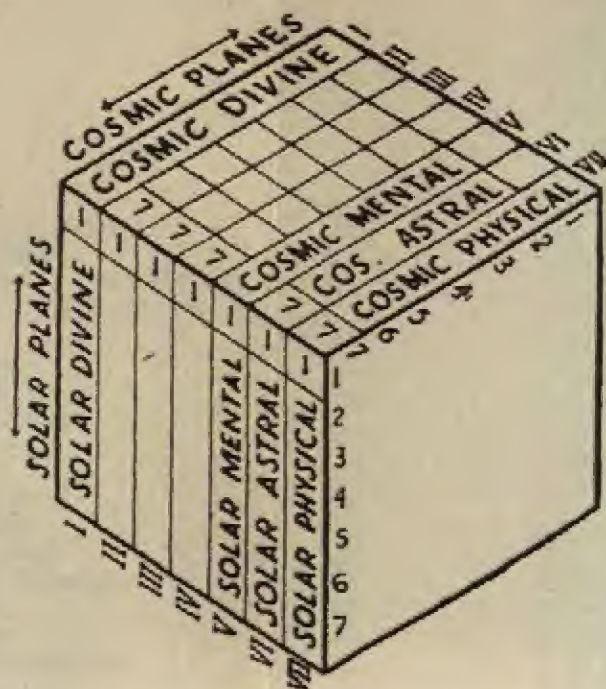
RELATIONSHIP BETWEEN COSMIC AND SOLAR PLANES

Note : The two diagrams are placed here side by side as a subject for study.

I to VII show Planes and 1 to 7 Sub-Planes in both diagrams.



(According to H. P. Blavatsky)



(According to C. Jinarājadāsa
and C. W. Leadbeater)

Here the Cosmic Physical Plane is the whole of the Solar Plane.

"The Solar Logos, as a Star, as the Lord of a System among the myriads of stars, lives and moves and has His Being in His Father Star, one of the great Seven". (Italics Editor's.)

(F. P. T., p. 189.)

Here, "the lowest and seventh sub-plane, of each cosmic plane, makes the highest and first, the atomic sub-plane of our seven planes within the solar system".

(F. P. T., p. 139.)

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Annie Besant : *A Study in Consciousness*, pp. 27-28.

RELATIONSHIP BETWEEN COSMIC AND SOLAR PLANES

Fig. 1. The diagram shows the relationship between the Cosmic Plane and the Solar Plane. The Cosmic Plane is the higher plane and the Solar Plane is the lower plane.

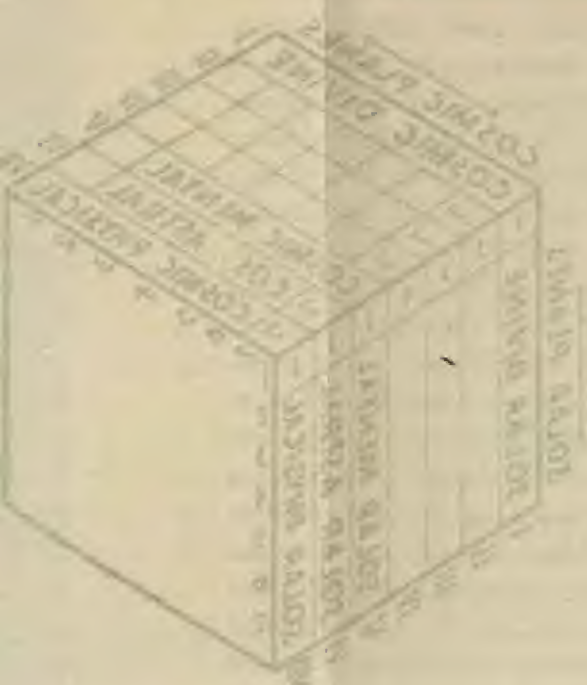


Fig. 2. The diagram shows the relationship between the Cosmic Plane and the Solar Plane. The Cosmic Plane is the higher plane and the Solar Plane is the lower plane.

Fig. 3. The diagram shows the relationship between the Cosmic Plane and the Solar Plane. The Cosmic Plane is the higher plane and the Solar Plane is the lower plane.

Fig. 4. The diagram shows the relationship between the Cosmic Plane and the Solar Plane. The Cosmic Plane is the higher plane and the Solar Plane is the lower plane.

Fig. 5. The diagram shows the relationship between the Cosmic Plane and the Solar Plane. The Cosmic Plane is the higher plane and the Solar Plane is the lower plane.

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